GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9151/1

File Number: DWERVT7206

Duration of Permit: 10 April 2021 to 10 April 2023

PERMIT HOLDER

Department of Transport

LAND ON WHICH CLEARING IS TO BE DONE

Lot 561 on Deposited Plan 174170, Onslow

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.3 hectares of native vegetation within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Avoid, minimise, and reduce impacts and extent of clearing

In determining the native vegetation authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

(a) avoid the clearing of native vegetation;

(b) minimise the amount of native vegetation to be cleared; and

(c) reduce the impact of clearing on any environmental value.

2. Weed management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known weed-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1 of this permit; and (f) actions taken to minimise the risk of the introduction and spread of weeds in accordance with condition 2 of this permit.

4. Reporting

The permit holder must provide to the *CEO* the records required under condition 3 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)
fill	means material used to increase the ground level, or to fill a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

Ryan Mincham
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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

18 March 2021

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below

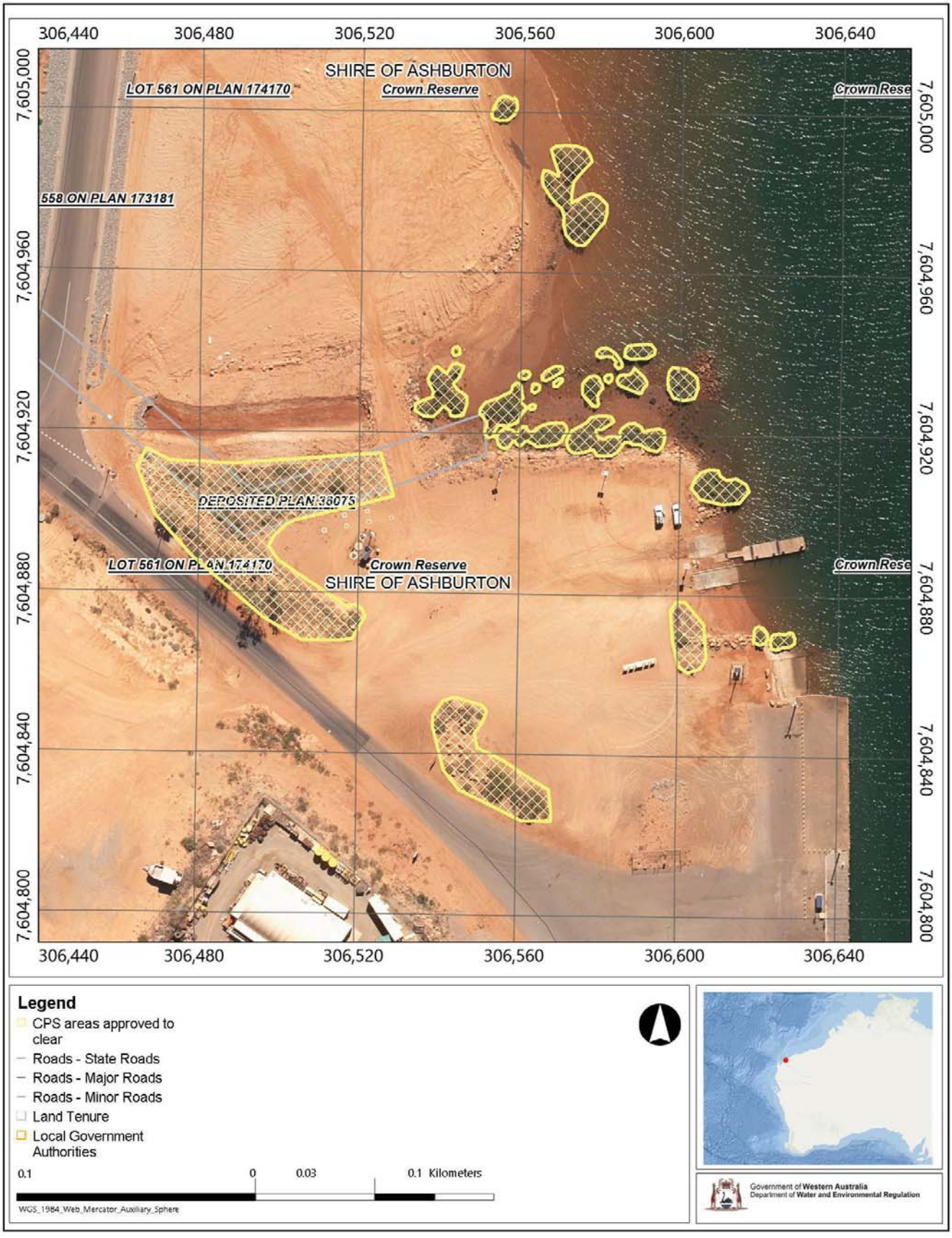

Figure 1: Map of the boundary of the area within which clearing may occur.

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9151/1
Permit type:	Area permit
Applicant name:	Department of Transport
Application received:	16/12/2020
Application area:	0.3 hectares of native vegetation
Purpose of clearing:	Construction of community boating precinct
Method of clearing:	Mechanical
Property:	Lot 561 on Deposited Plan 174170
Location (LGA area/s):	Shire of Ashburton
Localities (suburb/s):	Onslow

1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across 22 separate areas totalling 0.3 ha (see Figure 1, Section 1.5) for the purpose of construction of a community boating precinct, including a two-lane boat ramp and carpark.

1.3. Decision on application

Decision:	Granted
Decision date:	17 March 2021
Decision area:	0.3 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 14 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix C), relevant datasets (see Appendix G.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native riparian vegetation that may potentially impact the hydrography of Beadon Creek;
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values; and
- potential sedimentation of Beadon Creek.

After consideration of the available information, the Delegated Officer has determined that with appropriate management conditions, the proposed clearing is not likely to lead to an unacceptable risk to the environment. The Delegated Officer has decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- implement hygiene measures to minimise the risk of the introduction and spread of weeds; and
- undertake slow, progressive, one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

1.5. Site map

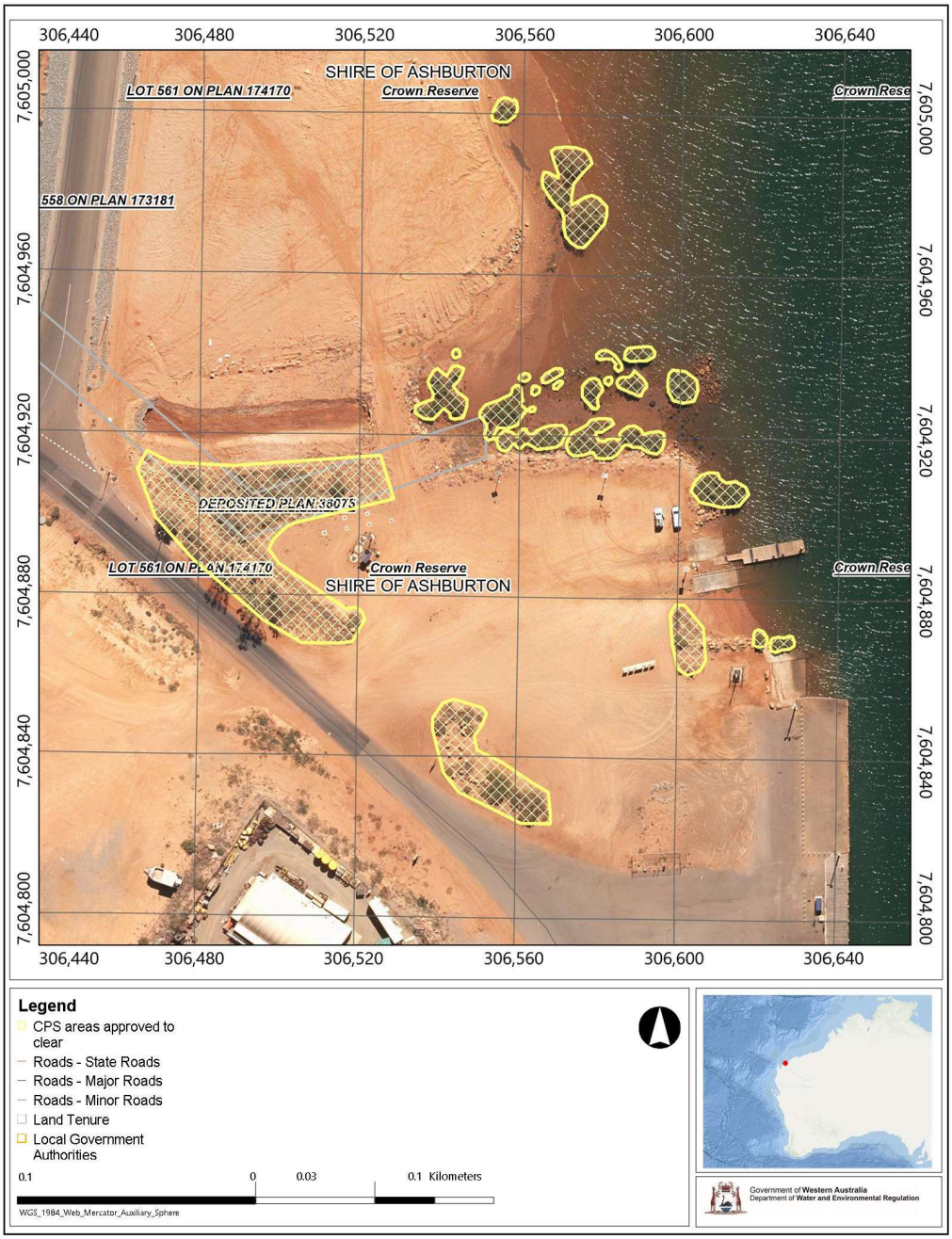

Figure 1: Map of the application area. The areas cross-hatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

2 Legislative Context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Contaminated Sites Act 2003* (CS Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values and the supplied Dredge and Disposal Management Plan satisfies the recommendation by DWER Contaminated Sites Branch (see Section 3.3).

A Dredge and Disposal Management Plan (360 Environmental, 2020) was submitted by the applicant. This report addresses potential impacts and mitigation measures to the following, but is not limited to:

- Impacts to native marine species
- Introduction of marine pests
- Sedimentation of Beadon Creek
- Acid sulfate soils
- Sediment Contaminants and hazardous material

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix C) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix D) identified that the impacts of the proposed clearing present a potential risk to land and water resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Land and Water Resources - Clearing Principles (f) & (i)

Assessment

Portions of the proposed clearing area include vegetation that is located on the banks and within the intertidal zone of Beadon Creek. Assessment of the photos supplied by the applicant indicate that the vegetation occupying these areas is comprised of mangrove species.

Assessment of the aerial imagery indicates the western side of Beadon Creek, between the first fork and the confluence with the ocean is largely devoid of vegetation and comprises of industry, with the eastern side containing a large tract of mangrove vegetation (Figure 2). Given the small amount of vegetation to be cleared and the proposed end land use of a boating precinct, it is unlikely the removal of the vegetation will result in any significant impacts to the water flow within Beadon Creek, or result in any instability of the riverbanks. Due to the degraded to completely degraded condition of the vegetation and the expansive tract of mangroves on the eastern side of Beadon Creek, it is unlikely there will be any significant impact to the vegetation community or any fauna that may utilise it.

The clearing of the vegetation may result in sedimentation of Beadon Creek, however, given the small amount of vegetation to be cleared, this sedimentation is likely to be short-term and not likely to significantly impact the health of the waterway, or flora and fauna that utilise it.

Conclusion
Based on the above assessment, the proposed clearing will not result in any significant impacts to the hydrography of Beadon Creek, to the overall vegetation composition of the local area or to the availability of potential habitat for fauna. It is considered that the impacts of the proposed clearing can be managed by taking steps to minimise the risk of the introduction and spread of weeds and does not constitute a significant residual impact.

Conditions
No water management conditions required.

3.2.2. Biological Values – Fauna - Clearing Principle (b)

The vegetation proposed to be cleared consists of *Acacia bivenosa, Euphorbia drummondii,* and *Eucalyptus sp*. as well as exotic grass species and mangrove species in the areas within the intertidal zone. Photos supplied by the applicant indicate the vegetation is in degraded to completely degraded condition, with aerial imagery showing the spaces between the application areas to be devoid of vegetation. The western bank of Beadon Creek is largely cleared and developed, while the eastern bank of Beadon Creek is undeveloped (see Figure 2).

Assessment of spatial data identified 2,329 records from 108 fauna species of conservation significance within the local area (50 km). A record of 10 migratory shore bird species, including the critically endangered Eastern Curlew (*Numenius madagascariensis)* is located approximately 70 m from the application area.

The Eastern Curlew, listed as Critically Endangered, is a migratory species with a primarily coastal distribution and is found in all states. In Western Australia it has a continuous distribution from Barrow Island and Dampier Archipelago through the Kimberley and then out to the Northern Territory, Queensland, and New South Wales coast. The Eastern Curlew breeds in Russia in May to late June with an estimated 73% of the population spending the winter in Australia (DoE, 2015).

In Australia, they are most associated with sheltered coasts, especially estuaries, bays, harbours, inlets, and coastal lagoons with large intertidal mudflats or sandflats. They are often recorded among saltmarsh and on mudflats fringed by mangroves, and sometimes within the mangroves. Feeding occurs mainly on crustaceans on soft sheltered intertidal sand or mudflats that are open and without vegetation. Eastern Curlews roost during high tide on sandy spits, sandbars, islets, and among coastal vegetation. Most individuals leave Australia between late February and March-April (DoE, 2015).

The Eastern Curlew has a wide distribution range, and there is widely available and vegetated habitat for this species on the eastern side of Beadon Creek (Figure 2). The area proposed to be cleared if of a minimal scale and not considered to represent significant habitat for this species. The proposed clearing is not likely to significantly impact or result in long-term detriment to the Eastern Curlew or any migratory bird species.

Conclusion
Based on the above assessment, it is unlikely the proposed clearing will result in any significant impacts to fauna or availability of feeding grounds and habitat.

Conditions No fauna management conditions required.

Figure 2*:* Aerial image showing extent of mangrove vegetation on eastern and western banks of Beadon Creek.

3.3. Relevant planning instruments and other matters

The Shire of Ashburton advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing (Applicant, 2021).

The application area is within an area reported in 2007 under the *Contaminated Sites Act 2003* (CS Act), as hydrocarbons were known to be present in soil, sediment, and groundwater. However. the proposed land use is not anticipated to be impacted. The site was again reported in 2015 due to tributyltin (TBT) contamination in Beadon Creek north-east of clearing area. The site is awaiting classification under the CS Act (DWER, 2021).

As a result, the Contaminated Sites Branch of the Department of Water and Environmental Regulation provides the following advice (DWER, 2021):

- Tributyltin (TBT) and potential acid sulphate soils were found to be present in the surface sediments of Beadon Creek in 2012, prior to a major dredging project. The department recommends that a site management plan be in place to mitigate the potential risks associated with any sediment disturbance as part of the proposed works for the Onslow Community Boating Precinct.

It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Applicant provided photos of vegetation to be cleared along with photo reference points.	Photos were assessed to determine the condition and composition of the vegetation that is proposed to be cleared. This information can be found in appendix C.

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is comprised of 22 patches of native vegetation totalling 0.3 ha in the extensive land use zone of Western Australia. It is immediately adjacent to Beadon Creek. Cleared areas and industrial development comprise the rest of the surrounding landscape. Spatial data indicates the local area (50 kilometre radius from the centre of the area proposed to be cleared) retains approximately 99 per cent of the original native vegetation cover.
Ecological linkage	The application area does not provide any formal or informal ecological linkages. The area in the immediate vicinity of the application area is cleared and comprises industrial development.
Conservation areas	The application area does not intersect any known or mapped conservation areas.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of *Acacia bivenosa, Euphorbia drummondii,* and *Eucalyptus sp*. as well as exotic grass species. Representative photos and maps are available in 0. This is broadly consistent with the mapped vegetation type: • Beard 676, which is described as succulent steppe; samphire (Shepherd et al, 2001) The mapped vegetation type retains approximately 99.39 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in very poor to completely degraded (Trudgen, 1991) condition, described as: • Very Poor – Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually a number of weed species present including very aggressive species. • Completely Degraded – Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs. The full Trudgen (1991) condition rating scale is provided in Appendix E. Representative photos are available in 0.
Climate	Rainfall: 400 mm Evapotranspiration: 400 mm

Characteristic	Details
Topography	Elevation of the subject area is approximately 0 m AHD.
Soil description	The soil is mapped as 201Du (Dune System) described as dune fields supporting soft spinifex and minor hard spinifex grasslands.
Land degradation risk	The application area has some susceptibility to wind erosion following fire, but stability returns rapidly following rain (van Vreeswyk 2004).
Waterbodies	The desktop assessment and aerial imagery indicated that Beadon Creek is located immediately east of the subject area.
Hydrogeography	The application area is located withing the Pilbara ground and surface water areas proclaimed under Section 26B (1) of the *Rights in Water and Irrigation Act 1914.*
Flora	There are records of 18 priority flora, encompassing seven species, within the local area, two of which are found on the same soil type as the application area. The closest record to the application area is located 3.7 km away.
Ecological communities	The local area contains one record of the Priority 1 Ecological Community '*Tanpool Land System'* located approximately 48.6 km away
Fauna	The local area contains 2,329 records from 108 fauna species of conservation significance.

C.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Carnarvon	8,382,890.35	8,360,801.46	99.74	1,023,121.94	12.17
Beard Vegetation Association					
Beard vegetation association 676*	23,788.42	23,642.97	99.39	2,506.62	10.54
Beard Vegetation Association within IBRA Bioregion					
Beard vegetation association 676* (Carnarvon)	23,788.40	23,642.96	99.39	2,506.62	10.54

*Government of Western Australia (2019)

C.3. Flora analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (local area)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Eremophila forrestii subsp. Viridis	P3	N	N	Y	14.9	3	5	N/A
Triumfetta echinate	P3	N	N	Y	14.9	6	7	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

C.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (local area)
35 Bird species	MI	-	-	0.073	1647
Numenius madagascariensis	CR	Y	Y	0.073	27
Limosa lapponica menzbieri	CR	N	N	2.2	4
Calidris ferruginea	CR	N	N	2	5
Calidris tenuirostris	CR	N	N	0.75	6
Pezoporus occidentalis	CR	N	N	2.1	1
Charadrius mongolus	EN	N	N	2	22
Dasyurus hallucatus	EN	N	N	2.4	5
Calidris canutus	EN	N	N	21.2	3
Mormopterus cobourgianus	P1	N	N	24.7	2
Tringa brevipes	P4	N	N	1.7	87
Elanus scriptus	P4	N	N	8.7	1
Leggadina lakedownensis	P4	N	N	10.5	348
Pseudomys chapmani	P4	N	N	16.6	1
Falco peregrinus	OS	N	N	14.7	5

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, MI: migratory

Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared does not contain locally or regionally significant flora, fauna, habitats, assemblages of plants. The vegetation to be cleared is comprised of isolated shrubs or small groups of vegetation. The application area does not intersect any state or federally listed Threatened Ecological Communities.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: Records of migratory and threatened species are located approximately 70 m from the application area. The area proposed to be cleared is not likely to be used for foraging, roosting, or breeding by these species.	Not likely to be at variance	Yes *See section 3.2.2*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There are no records of threatened flora within the local area (50 km radius). Given the degraded to completely degraded condition of the application area, the development of the surrounding area and the isolation of the application area it is unlikely that any threatened flora are present.	Not likely to be at variance	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The area proposed to be cleared is in degraded to completely degraded condition and does not contain species that can indicate a threatened ecological community. The local area does not contain any state listed Threatened Ecological Communities.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not likely to be at variance	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any conservation areas. The closest conservation area is a portion of the Tanpool Land System located approximately 48 km from the application area.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Vegetation proposed to be cleared is associated with the banks of Beadon Creek and is located within the intertidal zone.	At variance	Yes *Refer to Section 3.2.1, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are moderately susceptible to wind erosion. Noting the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The application area is adjacent to Beadon Creek and contains vegetation located within intertidal zone associated with the waterway and may impact on water quality.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: Given the small amount and sparsity of the vegetation to be cleared, particularly in relation to the waterway, it is unlikely the clearing will impact the incidence or degree of flooding. The application area is not within any mapped floodway/fringe or flood development control area.	Not likely to be at variance	No

Appendix E. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.

Condition	Description
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix F. Photographs of the vegetation

Figure 3: 12 photos showing the vegetation proposed to be cleared as part of CPS 9151/1

Appendix G. Sources of information

G.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)

- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

G.2. References

360 Environmental (2020) *Beadon Creek, Onslow WA, Dredge and Disposal Management Plan.* received 17 March 2021.

Applicant (2020) *Clearing permit application CPS 9151/1*, received 16 December 2020 (DWER Ref:DWERDT393914).

Applicant (2021) *Supporting information for clearing permit application CPS 9151/1,* received 28 January 2021 (DWER Refs:A1976062, A1976064, A1976065, A1976066).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of the Environment (DoE) (2015). *Conservation Advice* Numenius madagascariensis *eastern curlew*. Canberra: Department of the Environment.

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia. URL: https://maps.agric.wa.gov.au/nrm-info/ (accessed 19 January 2021).

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