



# Clearing Permit Decision Report

## 1. Application details and outcomes

### 1.1. Permit application details

Permit number:	9728/2
Permit type:	Area Permit
Applicant name:	Onslow Salt Pty Ltd
Application received:	19 April 2024
Application area:	0.525 hectares
Purpose of clearing:	Potable water treatment plant
Method of clearing:	Mechanical Removal
Tenure:	General Purpose Lease 8SA
Location (LGA area/s):	Shire of Ashburton
Colloquial name:	Onslow Salt Potable Water Treatment Plan

### 1.2. Description of clearing activities

Onslow Salt Pty Ltd proposes to clear up to 0.525 hectares of native vegetation within a boundary of approximately 0.525 hectares, for the purpose of building a potable water treatment facility. The project is located approximately 0.5 kilometres west of Onslow, within the Shire of Ashburton.

Clearing permit CPS 9728/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 30 June 2022 and was valid from 23 July 2022 to 22 July 2024. The permit authorised the clearing of up to 0.525 hectares of native vegetation within a boundary of approximately 0.525 hectares, for the purpose of building a potable water treatment plant.

On 19 April 2024, the Permit Holder applied to amend CPS 9728/2 to extend the permit duration by two years to 22 July 2026 (Onslow Salt, 2024b). Clearing has not commenced under the permit (Onslow Salt, 2024a).

### 1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	27 June 2024
Decision area:	0.525 hectares of native vegetation

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 19 April 2024. DEMIRS advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix D), supporting information provided by the applicant including the results of a flora and vegetation survey (Biota, 2022), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the purpose of the clearing to build a potable water treatment plant.

The assessment identified that the proposed clearing may result in:

- 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 land degradation in the form of wind erosion.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion;

The assessment has not changed since the assessment for CPS 9728/2. The Delegated Officer determined that the proposed extension of permit duration by two years is not likely to lead to an unacceptable risk to environmental values.

## 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)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Mining Act 1978* (WA)
- *Any relevant State Agreements* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

## 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 such as reducing the application area from 0.6 hectares to 0.525 hectares, to avoid the clearing of 35 individuals of Priority 3 flora species, *Abutilon sp. pritzelatum*.

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.

### 3.2. Assessment of impacts on environmental values

The assessment against the clearing principles (see Appendix B) identified the impacts of the proposed clearing are limited and able to be managed to be environmentally acceptable with standard, weed control, avoid and minimise and staged clearing management conditions.

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 9728/1.

### 3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 31 May 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim over the area under application (DPLH, 2024). This claim has been by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are two registered Aboriginal Sites of Significance within the application area (DPLH, 2024). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is adjacent to areas cleared for construction activities and developments and is in close proximity to the town of Onslow (Biota, 2022; GIS Database). The proposed clearing area is not an area of significantly valuable vegetation (Biota, 2022).
Ecological linkage	The proposed clearing does not form part of any known ecological linkages and using satellite imagery, does not represent a significant remnant of native vegetation in an area that has been extensively cleared, and is therefore unlikely to provide an ecological linkage to the surrounding area (GIS Database)
Conservation areas	The application area does not fall within any mapped conservation areas (GIS Database). The closest mapped conservation areas are approximately 21 kilometres north and south of the application area are the Thevenard Island Nature Reserve and the former leasehold proposed for conservation - Mt Minnie (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 117: Hummock grasslands, grass steppe; soft spinifex (GIS Database).  A flora and vegetation survey was conducted over the application area by Biota during August, 2021. The following vegetation associations were recorded within the application area (Biota, 2022):  <b>P1: TeCEIPcAj</b> - <i>Triodia epactia</i> very open hummock grassland over <i>*Cenchrus ciliaris</i> , ( <i>*C. setiger</i> ) tussock grassland over <i>Ipomoea costata</i> , <i>*Aerva javanica</i> very open herbland.  *Denotes weed species.
Vegetation condition	The vegetation survey by Biota (2022) and aerial imagery indicates the vegetation within the proposed clearing area is in Poor to Very Poor (Trudgen, 1991) condition, described as: <ul style="list-style-type: none"> <li>• <b>Poor</b> – 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.</li> <li>• <b>Very Poor</b> – 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.</li> </ul> The full Trudgen (1991) condition rating scale is provided in Appendix C.
Climate and landform	The application area is located in an area with uniform rainfall throughout the year, with an average annual rainfall (Onslow Airport station) of approximately 303.4 millimetres and an annual evaporation of approximately 3,000 millimetres (BoM, 2024). The application area is situated on the fringe of a long lacustrine flat engulfed by coastal dunes and lies approximately 750 metres from the coast (Biota, 2022; GIS Database).
Soil description	The soil is mapped as soil unit SV8 (Biota, 2022; DPIRD, 2024; GIS Database). <b>SV8:</b> Salt flats, tidal swamps, and coastal dune sands (Northcote et al., 1960-68). Chief soils are saline loams and shelly sands with small areas of calcareous earths and shallow loams are associated with marls (Biota, 2022; Northcote et al., 1960-68).
Land degradation risk	The application area falls within the Dune land system (DPIRD, 2024; GIS Database). This land system is described by Van Vreeswyk et al. (2004) as: <b>Dune Land System:</b> Depositional surfaces; sand dunes and swales with no organised drainage, dunes trending approximately north-south and frequently becoming reticulate; narrow swales with minor areas of claypans, swamps and depressions. Spinifex is subject to fairly regular burning, some susceptibility to wind erosion immediately following burning but stabilisation occurs rapidly after rain.
Waterbodies	The desktop assessment and aerial imagery indicated that one major non-perennial lake is approximately 60 metres to the north and west of the application area (GIS Database).
Hydrogeography	The application area is located within the Pilbara Groundwater Area which is legislated by the <i>R/II/ Act 1914</i> (GIS Database). The mapped groundwater salinity of the application area is 7,000 – 14,000 milligrams per litre total dissolved solids which is described as saline to highly saline (GIS Database).
Flora	There are no Priority or Threatened flora recorded within the application area (Biota, 2022; GIS Database). A population of 35 individuals of Priority 3 flora species <i>Abutilon</i> sp. pritzelanum was recorded towards the northern boundary of the application area, however this area was omitted from the application area to avoid the disturbance of the population (Biota, 2022). Within the local area of 50 kilometres, there are a further 7 Priority flora species (GIS Database).

Characteristic	Details
Ecological communities	There are no mapped Priority or Threatened Ecological Communities located within the application area (GIS Database). Within the local area (50 kilometre radius) there is the Coastal dune tussock grassland dominated by <i>Whiteochloa airoides</i> (Priority 3) located 25 kilometres northwest of the application area, located on an offshore island (GIS Database, Biota, 2022).
Fauna	No conservation significant fauna are recorded within the application area (Biota, 2022; GIS Database). There has been 71 different conservation significant fauna species recorded within the local area (50 kilometre radius), of these none are likely to inhabit the application area due to the lack of significant fauna habitat and level of degradation within the application area (Biota, 2022; GIS Database).

## A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix D.1), and biological survey information (Biota, 2022; Western Australian Herbarium 1998-), impacts to the following conservation significant flora required further consideration.

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 (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Abutilon</i> sp. <i>Onslow</i> (F. Smith s.n. 10/9/61)	P3	N	Y	N	21.9	14	Y
<i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095)	P3	Y	Y	Y	0.005	52	Y
<i>Carpobrotus</i> sp. <i>Thevenard Island</i> (M. White 050)	P3	N	N	N	21.6	31	Y
<i>Corynotheca flexuosissima</i>	P3	N	Y	N	1.7	17	Y
<i>Eleocharis papillosa</i>	P3	N	N	N	16.6	14	Y
<i>Eremophila forrestii</i> subsp. <i>viridis</i>	P3	N	Y	Y	15.3	6	Y
<i>Stackhousia clementii</i>	P3	Y	N	N	4.6	22	Y
<i>Triumfetta echinata</i>	P3	N	Y	N	14.8	7	Y

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

## Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u> The application area does not contain any conservation significant flora or fauna (Biota, 2022; GIS Database). Eight Priority flora species are recorded within the local area (50 kilometre radius), however none are likely to be significantly impacted due to lack of suitable habitat within the application area (Biota, 2022). A population of 35 individuals of Priority 3 flora species, <i>Abutilon</i> sp. <i>Pritzelianum</i> were recorded close to the northern boundary of the application area (Biota, 2022). This area was omitted from the original and amended application to avoid the disturbance of this population (Biota, 2022). No Priority Ecological Communities (PECs) are found within or in close proximity to the application area (Biota, 2022; GIS Database).</p> <p>81 conservation significant fauna species were recorded within the local area, however none are likely to inhabit the application area due to the lack of suitable, significant fauna habitat and level of degradation within the application area (Biota, 2022; GIS Database).</p> <p>There were four weed species recorded within the application area (Biota, 2022), none of which are listed as Declared Pests or Weeds of National Significance</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
(WONS). Potential impacts from weeds as a result of the proposed clearing can be reduced by a weed management condition.		
<p><u>Principle (b):</u> <i>“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.”</i></p> <p><u>Assessment:</u> The application area is relatively small (0.525 hectares) and does not contain any significant fauna habitats (Biota, 2022). Due to the fauna habitat present in the application area being common and widespread in the local area, the level of degradation within the application area and the small clearing footprint, the proposed clearing is unlikely to significantly impact conservation significant fauna or significant fauna habitats (Biota, 2022; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u> There are no known records of Threatened flora within the application area or within the local area (50 kilometre radius) (Biota, 2022; GIS Database). The vegetation associations within the application area are common and widespread throughout the region (Biota, 2022; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened flora.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u> There are no known or mapped Threatened Ecological Communities within the application area or within 50 kilometres of the application area (GIS Database). The survey conducted over the application area by Biota (2022) did not identify the vegetation within the survey area to be analogous to any Threatened Ecological Communities.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> The application area is located within the Carnarvon bioregion of the Interim Biogeographic Regionalisation of Australia (IBRA) (GIS Database). Approximately 99 per cent of the pre-European vegetation still exists in the Carnarvon bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 117 (GIS Database). This vegetation association has not been extensively cleared as approximately 96 per cent of the pre-European extent of this vegetation association remains uncleared at state level, and 85 per cent at the bioregional level (Government of Western Australia, 2019).</p>	<p>Not at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>
<p><u>Principle (h):</u> <i>“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.”</i></p> <p><u>Assessment:</u> There are no conservation areas within the application area (GIS Database). Given the distance to the nearest conservation area (approximately 21 kilometres), the proposed clearing is not likely to have an impact on the environmental values of any nearby conservation areas (Biota, 2022; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u> There are no permanent watercourses or wetlands within the application area (Biota, 2022; GIS Database). There is a non-perennial lake within 60 metres of the application area, however due to the small size of the application area and previous clearing occurring on land adjacent to the watercourse it is unlikely that the proposed clearing will impact on any watercourse or riparian vegetation (Biota, 2022; GIS Database).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u> The mapped soils are moderately susceptible to wind erosion (refer to Appendix A). Noting the land system of the application area and the poor to very poor degraded condition of the vegetation the proposed clearing may have an appreciable impact on land degradation, as when vegetation is cleared or burnt these soils have</p>	<p>May be at variance</p> <p>(as per CPS 9728/1)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
the potential to mobilise under strong prevailing winds (DPIRD, 2024; GIS Database). Potential impacts from erosion will be managed by a staged clearing condition.		
<p><b>Principle (i):</b> “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.”</p> <p><b>Assessment:</b> There are no permanent watercourses, wetlands or Public Drinking Water Source Areas recorded within the application area (Biota, 2022; GIS Database). There is a non-perennial lake 60 metres from the application area and saline coastal flats approximately 2 kilometres southeast of the application area (GIS Database). Given the annual average rainfall (303.4 millimetres) and the climate of the region, surface water is likely to be present for only short periods of time.</p> <p>Due to this, the small area of clearing within an already degraded area and the already highly saline groundwater, the proposed clearing is unlikely to impact the quality of surface or underground water.</p>	Not likely to be at variance  (as per CPS 9728/1)	No
<p><b>Principle (j):</b> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><b>Assessment:</b> There are no permanent watercourses or wetlands within the application area (GIS Database). The sandy soil in the application area would provide rapid infiltration of rainfall and any excess rain would likely flow into the nearby non-perennial lake as the area is situated on the fringe of a long lacustrine flat (Biota, 2022; DPIRD, 2024). Due to the climate and sporadic rainfall in the area, the soil types and the already degraded, small application area, the proposed clearing is unlikely to increase the incidence or intensity of flooding (Biota, 2022; GIS Database).</p>	Not likely to be at variance  (as per CPS 9728/1)	No

## Appendix C. 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.
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 D. Sources of information

### D.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)

- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

## D.2. References

- Biota (2022) Onslow Salt Potable Water Treatment Plant Biological Assessment. Report prepared for Onslow Salty Pty Ltd, by Biota Environmental Sciences, March 2022.
- Bureau of Meteorology (BoM) (2024) Bureau of Meteorology Website – Climate Data Online, Onslow Airport Station. Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 14 June 2024).
- Department of Environment Regulation (DER) (2014) *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](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf)
- Department of Planning, Lands and Heritage (DPLH) (2024) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 13 June 2024).
- Department of Primary Industries and Regional Development (DPIRD) (2024) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://dpiird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 14 June 2024).
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- Environmental Protection Authority (EPA) (2016) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. Available from: [http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey\\_Dec13.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf)
- Environmental Protection Authority (EPA) (2020) Technical Guidance – Terrestrial Fauna Surveys. Available from: [https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf)
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Onslow Salt Pty Ltd (Onslow Salt) (2024a) Annual Clearing Report for CPS 9728/1. Prepared for Department of Energy, Mines, Industry Regulation and Safety, by Onslow Salt Pty Ltd, 9 April 2024.
- Onslow Salt Pty Ltd (Onslow Salt) (2024b) Clearing permit application form, CPS 9728/2, received 19 April 2024.
- 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.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) An inventory and condition survey of the Pilbara Region, Western Australia. Technical Bulletin No. 92. Department of Agriculture, South Perth, Western Australia.
- Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 17 June 2024).

## 4. Glossary

### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i> , Western Australia
<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DCCEEW</b>	Department of Climate Change, Energy, the Environment and Water, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<b>DEMIRS</b>	Department of Energy, Mines, Industry Regulation and Safety
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DEMIRS)
<b>DoEE</b>	Department of the Environment and Energy (now DCCEEW)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora (now known as Threatened Flora)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

#### **T** Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of ‘Specially Protected Fauna’ listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of ‘Rare Flora’ listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

#### **CR** Critically endangered species

Threatened species considered to be “*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

#### **EN** Endangered species

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

#### **VU** Vulnerable species

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation*



(*Specially Protected Fauna*) Notice 2018 for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

### **Extinct Species:**

#### **EX Extinct species**

Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

#### **EW Extinct in the wild species**

Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

### **Specially protected species:**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

#### **MI Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

#### **CD Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

#### **OS Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

#### **P Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna

lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

**P1 Priority One - Poorly-known species**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

**P2 Priority Two - Poorly-known species**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

**P3 Priority Three - Poorly-known species**

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

**P4 Priority Four - Rare, Near Threatened and other species in need of monitoring**

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**Principles for clearing native vegetation:**

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (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.