

Clearing Permit Decision Report

1. Application details					
1.1. Permit application de	etails				
Permit application No.:	1869/1				
Permit type:	Purpose Permit				
1.2. Proponent details					
Proponent's name:	Dampier Salt Ltd				
1.3. Property details	State Agreement Act. Minorel Lagge 250SA (AMI 70/250)				
Local Government Area:	Town Of Port Hedland				
Colloquial name:	Port Hedland Salt Operat	ion			
1.4. Application					
Clearing Area (ha) No. 1	Trees Method of Clear	ing For the purpose	of:		
20	Mechanical Rei	moval Mineral Producti	on		
2 Site Information					
2. Site information					
2.1. Existing environmen	t and information				
2.1.1. Description of the nati	ive vegetation under app	lication			
Vegetation Description		Clearing Description	Vegetation Condition	Comment	
Beard vegetation associations have	been mapped at a 1:250,000	Dampier Salt Ltd have	Excellent:	The vegetation	
examine the vegetation extent in a	regional context. Three Beard	hectares of native vegetation	structure intact;	from the vegetation	
vegetation associations are located	within the area proposed to	within a total application area	disturbance	description provided by	
be cleared (GIS Database, Snephel	rd et al., 2001), and include:	hectares. The proposed	individual	aerial photography.	
127: Bare areas - mudflats:		clearing is for the purpose of	species, weeds		
· _ · · _ · · · · · · · · · · · · · · ·		temporary camp, in order to	(Keighery, 1994)	Dampier Salt Limited	
589: Mosaic: Short bunch grassland	d - savanna / grass plain	undertake urgent repairs to		(from here on referred to as Dampier Salt) has	
(Pilbara) / Hummock grasslands, gr	ass steppe; soft spinifex;	as a result of tropical cyclone	То	an Environmental	
617: Hummook grooolanda dwarf a	hrub stoppo: Acasia	George.		Management System (Rio Tinto Minerals -	
translucens over soft spinifex.	ппир стерре, Асаста		Good: Structure	Asia Pacific	
		some of the area proposed to be cleared has previously	altered by	Environmental Management Svstem	
The vegetation located within the ar	reas proposed to be cleared	been disturbed by various	multiple disturbance:	(Certified	
was surveyed by Biota (2006a). The survey was conducted as a part of the expansion project of the existing crystalliser ponds. No		activities, including the construction of crystalliser	retains basic	ISO14001:2004)) in place, which includes a	
Declared Rare Flora (DRF) were loo	ponds.	structure/ability to	number of		
proposed clearing areas during the) was recorded outside the survey (Biota, 2006a).		(Keighery, 1994)	management measures to prevent	
		The initial application was for clearing of up to 20 hectares		environmental	
Biota (2006a) also identified the foll	owing vegetation association	of native vegetation within the		degradation.	
within the proposed areas to be clea	ared, at a 1:22,500 scale:	state agreement lease area			
I D.As - Plains area with Acadia ato	llaticens low to low open	762 hectares). However, the			
shrubland over <i>Triodia epactia</i> mid-	dense hummock grassland	assessing officer and Dampier Salt Limited have			
and Eriachne obtusa open tussock	grassland;	negotiated to limit the			
The survey identified the widespree	d accurrance of introduced	proposed clearing envelope. The application area has			
The survey identified the widesprea	d occurrence of introduced	The application area has			

been reduced from

approximately 762 hectares to two defined areas, totalling

approximately 74.8 hectares.

The survey identified the widespread occurrence of introduced species, including *Aerva javanica* (Kapok Bush), *Cenchrus ciliaris* (Buffel Grass), *Cenchrus setiger* (Birdwood Grass), *Chloris barbata* (Purpletop Chloris), *Clitoria ternatea* (Butterfly Pea), *Indigofera oblongifolia, Indigofera sessiliflora*, and *Malvastrum americanum* (Spiked Malvastrum) (Biota, 2006a).

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Assessment of application against clearing principles 3. (a) Native vegetation should not be cleared if it comprises a high level of biological diversity. Comments Proposal is not likely to be at variance to this Principle The proposed clearing is located within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, and the Roebourne IBRA subregion (GIS Database). Kendrick and Stanley (2001) assessed the biodiversity of the Roebourne IBRA subregion in relation to landscape, ecosystem, species and genetic values. High species and ecosystem diversity as well as a centre of endemism are cited for the Burrup Peninsula (Kendrick and Stanley, 2001), which is located approximately 200 kilometres west of the clearing permit application area. The basalt rock piles in the region are listed as fire refuges in Kendrick and Stanley (2001), however, no such habitats were found within the application area during the Biota (2006a; 2006b) surveys. The application areas are located immediately adjacent to roads and some sections of the application area have been previously disturbed by construction of crystalliser ponds (GIS Database, Biota, 2006a). Only one species of flora of conservation significance (Abutilon trudgenii ms (P3)) was recorded during the Biota (2006a) survey. However, this species was not recorded within the areas proposed to be cleared. A number of species of fauna of conservation significance were recorded during the Biota (2006b) survey. However, the vegetation and habitat types occurring within the application area are well represented in the region (GIS Database; Biota, 2006a; 2006b), and impacts on the conservation status of these species are unlikely. The application area is unlikely to represent an area of higher biodiversity value when compared to representative vegetation in a local and regional context. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology Biota (2006a). Biota (2006b). Kendrick and Stanley (2001). GIS Database: Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00. - Interim Biogeographic Regionalisation of Australia - EA 18/10/00. - Pre-European Vegetation - DA 01/01. - Port Hedland Townsite 20cm Orthomosaic - DLI 02. (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 indigenous to Western Australia. Comments Proposal is not likely to be at variance to this Principle Biota (2006b) conducted a field fauna survey over a ten day period between 17 and 26 September 2005. The survey was conducted over the whole ML250SA tenement area, including the proposed clearing areas. The findings of the survey were a total of 83 vertebrate species, including 31 birds, 8 native mammals, 3 introduced mammals, 38 reptiles and 3 frogs. No fauna species listed on the Western Australian's threatened species list were recorded during the survey (Biota, 2006b). Two Priority listed fauna (Mormopterus Ioriae cobourgiana (P1) Ardeotis australis (P4)) were confirmed as occurring in the area (Biota, 2006b). The Biota (2006b) survey identified two main habitats within the areas proposed to be cleared: undulating sandy plain consisting of Acacia low shrubland over Triodia hummock grassland; and floodplain consisting of Acacia open shrubland over buffel grass. None of the habitats surveyed over the proposed clearing areas are considered to be unique or restricted in their distribution (Biota, 2006b). A search of the DEC Priority fauna Databases was conducted by DEC on behalf of the proponent. The search revealed seven species of conservation significance previously recorded within a 50 kilometre buffer area surrounding the application area (Biota, 2006b). The results of that search were: Lagostrophus fasciatus fasciatus (Banded Hare-wallaby) - Schedule 1; Aspidites ramsavi (Woma - southwest population) - Schedule 4 / Priority 1; Mormopterus Ioriae cobourgiana (Little North-western Mastiff Bat or Mangrove Freetail Bat) - Priority 1; Macroderma gigas (Ghost Bat) - Priority 4; Pseudomys chapmani (Western Pebble-mound Mouse (Ngadji)) - Priority 4;

- Ardeotis australis (Australian Bustard) Priority 4; and
- Numenius madagascariensis (Eastern Curlew) Priority 4 (Biota, 2006b).

The Mangrove Freetail Bat was recorded within the survey area (Biota, 2006b). The species partially relies on the habitat within the proposed area to be cleared for prey foraging. However, impacts through habitat loss are considered low due to the proposed size of the clearing, and as roosting occurs within the mangrove habitat outside the proposal areas.

The Australian Bustard occurs within the survey area (Biota, 2006b). Potential impacts upon the species includes habitat loss, however, the species is relatively widespread, and the relatively small area of the proposed clearing is unlikely to have any significant impacts on the habitat for this species.

The Eastern Curlew is likely to occur in mangrove habitat adjacent to the proposed clearing areas (Biota, 2006b). Impacts through habitat loss are considered low, as its preferred habitat occurs outside the clearing envelope (Biota, 2006b).

The Ghost bat is likely to occur in the region, but as there are no known caves or abandoned mines within the application areas, the likelihood of them roosting within the proposed clearing area is very low (Biota, 2006b).

The Banded Hare-wallaby is unlikely to occur within the areas proposed to be cleared, as the records in the Port Hedland area are historical, and extant animals are known only to exist on Bernier and Dorre Islands and at Shark Bay (Biota, 2006b).

Records of Woma are also present in the Priority fauna DEC database, however, only the southwest population of this species is listed as specially protected (Biota, 2006b). The northern form that could potentially occur within the proposed areas to be cleared is not currently listed as a threatened or priority species (Biota, 2006b).

The Western Pebble-mound mouse is unlikely to occur within the area, due to the absence of preferred habitat (the species requires pebbles to build complex burrow systems) (Biota, 2006b).

The fauna habitats within the proposed areas to be cleared are closely linked to the vegetation associations and landforms. Since the clearing envelope has been reduced to 74.8 hectares, the habitats are well represented elsewhere within the tenement boundaries and its surrounds, and no significant loss of habitat for fauna indigenous to WA is expected.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Biota (2006b).

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal is not likely to be at variance to this Principle

GIS Databases have no records of threatened flora species within a 50 kilometre radius of the application area (GIS Database). The nearest recorded threatened flora is *Terminalia supranitifolia* (P3), located approximately 200 kilometres west of the proposed clearing area (GIS Database).

A survey of DEC and Western Australian Herbarium rare flora databases conducted on behalf of the proponent yielded 18 records of 7 flora species occurring within 50 kilometres. These species are:

- Ptilotus appendiculatus var. minor (Priority 1);
- Tephrosia andrewii (Priority 1);
- Euphorbia clementii (Priority 2);
- Gomphrena pusilla (Priority 2);
- Acacia glaucocaesia (Priority 3);
- Goodenia pascua (Priority 3); and
- Gymnanthera cunninghamii (Priority 3) (Biota, 2006a).

Biota (2006a) conducted an eight day survey (17 to 24 September 2005) of the ML250SA area, which includes the application area, as well as areas north of the application area. No Declared Rare Flora (DRF) were recorded during the survey (Biota, 2006a). A single Priority flora species, *Abutilon trudgenii* ms (Priority 3) was recorded during the Biota (2006a) survey. This species occurs outside the areas proposed to be cleared.

Abutilon trudgenii ms has been recorded from various locations, including Warralong, Woodstock, Point Sampson, Karratha and Pannawonica. It is unlikely that the proposed clearing will impact significantly on the conservation status of this species.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Biota (2006a). GIS Database:

- Declared Rare and Priority Flora List - CALM 01/07/05.

(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.

Comments Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities (TECs) within the proposed clearing area (GIS Database). The nearest Ministerially endorsed TECs are the Themeda Grassland Communities, located approximately 230 kilometres south from the clearing permit application area (GIS Database).

During the Biota (2006a) survey, an area of limestone ridge, approximately 4 kilometres north-east of the proposed clearing area was considered to have high conservation value, given that the substrate is unlikely to be well represented in the region, and is likely to be restricted to similar coastal limestone substrata in the Pilbara region. The vegetation type, however, is not listed as a TEC, and does not contain any Rare or Priority flora species (Biota, 2006a).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Biota (2006a).

GIS Database:

- Threatened Ecological Communities - CALM.

(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.

Comments Proposal is not at variance to this Principle

Approximately 99.9% and 99.5% of the Pre-European vegetation remains in the IBRA Pilbara bioregion and Roebourne IBRA sub-region respectively, within which this proposal is located (GIS Database, Shepherd *et al.*, 2001). Available aerial photography (GIS Database) and information from the Biota (2006a) survey indicate that the areas surrounding this clearing permit application have not been cleared extensively, as can be seen from the table below.

	Pre-	Current extent	Remaining %*	Conservation	% in IUCN
	European area (ha)*	(ha)*		status**	Class I-IV Reserves*
IBRA bioregion – Pilbara	17,804,164	17,794,651	99.9%	Least concern	6.3%
IBRA subregion – Roebourne	1,844,132	1,834,871	99.5%	Least concern	6.3%
Beard vegetation associations (subregion level)					
127	179,917	177,262	98.5%	Least concern	0%
589	680,454	680,419	100.0%	Least concern	1.8%
647	189,414	189,414	100.%	Least concern	0%

* Shepherd *et al.* (2001)

** Department of Natural Resources and Environment (2002)

The proposed clearing area is not considered to be a significant remnant of native vegetation within an extensively cleared area.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Biota (2006a).

Shepherd et al. (2001).

GIS Database:

- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00.

- Interim Biogeographic Regionalisation of Australia EA 18/10/00.
- Port Hedland Townsite 20cm Orthomosaic DLI 02.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is not likely to be at variance to this Principle

There are no watercourses or waterbodies within the proposed clearing application area (GIS Database).

The closest non-perennial watercourse is the Beebingarra Creek, located approximately 130 metres east of the proposed temporary camp site. As this watercourse is outside the area proposed to be cleared, it is unlikely that

native vegetation associated with the watercourse will be impacted.

It is not anticipated that clearing within the permit application areas will have a significant impact on the regional hydrology of the area, as most of the flows are dependent on high intensity rainfall events.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:

- Hydrography, linear (medium scale, 250k GA).
- Hydrography, linear DOE 1/2/04.
- Hydrography, linear (hierarchy) DOW.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

The clearing application area lies within the Uaroo land system (sandy surfaced plains: not degraded or eroded) (GIS Database, Van Vreeswyk *et al.*, 2004). The Uaroo land system is generally not susceptible to erosion or significant degradation (Van Vreeswyk *et al.*, 2004).

Eight introduced species (weeds) were recorded within and surrounding the proposed clearing areas during the Biota (2006a) survey. They were:

- Aerva javanica (Kapok Bush);
- Cenchrus ciliaris (Buffel Grass);
- Cenchrus setiger (Birdwood Grass);
- Chloris barbata (Purpletop Chloris);
- Clitoria ternatea (Butterfly Pea);
- Indigofera oblongifolia;
- Indigofera sessiliflora; and
- Malvastrum americanum (Spiked Malvastrum) (Biota, 2006a).

Of the introduced species recorded during the Biota (2006a) survey, *Aerva javanica*, *Cenchrus ciliaris*, *C. setiger* and *Malvastrum americanum* are common and widespread weeds in the Pilbara region.

Based on the above, the proposal may be at variance to this Principle. However, provided appropriate weed and erosion control measures are implemented, it is unlikely that the proposed clearing will result in significant land degradation.

Methodology Biota (2006a).

Van Vreeswyk *et al.* (2001). GIS Database:

- Rangeland Land System Mapping - DA.

(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.

Comments Proposal is not likely to be at variance to this Principle

The nearest Directory of Important Wetlands (formerly Australian Nature Conservation Agency (ANCA)) wetland area is the Leslie (Port Hedland) Saltfields System, located approximately seven kilometres north-east of the proposed clearing areas (GIS Database). The Saltfields System plays an important ecological role, as a major migration stop-over area for shorebirds in the East-Asia-Australasia Flyway (Department of the Environment and Water Resources, 2007). However, based on the distance between the proposed clearing and the wetlands, adverse impacts on the environmental values of the wetlands are unlikely.

The nearest Department of Environment and Conservation (DEC) managed area is the Class "A" North Turtle Island Nature Reserve, located off-shore, approximately 56 kilometres north-east of the proposed clearing areas (GIS Database). The nearest on-shore DEC managed area is the Class "A" Mungaroona Range Nature Reserve, located approximately 115 kilometres south-west of the proposed clearing areas (GIS Database). Based on the distance between the proposed clearing and the nature reserves, adverse impacts on the environmental values of those reserves are unlikely.

The Coastal Region - Mary Anne Islands to Cape Keraudren Red Book Area (System 8.7) is located approximately 71 kilometres east from the proposed clearing (GIS Database). The closest on-shore Red Book area is the Marble Bar Red Book Area (System 8.9), located approximately 73 kilometres south of the proposed clearing areas. The recommendation from the Environmental Protection Authority (EPA) (1993) was that no action be taken with regards to the Marble Bar Red Book area. Also, based on the distance between the proposed clearing permit area and the Marble Bar Red Book area, any adverse impacts on the environmental values of that area are unlikely.

	Based on the above, the proposed clearing is not likely to be at variance to this Principle.
Methodology	Department of the Environment and Water Resources (2007). EPA (1993). GIS Database: - ANCA, Wetlands - CALM 08/01. - CALM Managed Lands and Waters - CALM 1/07/05. - CALM proposed 2015 pastoral lease exclusions. - CALM Regional Parks - CALM 12/04/02. - Proposed National Parks, FMP - CALM 19/03/03. - Register of National Estate - EA 28/01/03. - System 1 to 5 and 7 to 12 Areas - DEP 06/95.
(i) Native v in the q	regetation should not be cleared if the clearing of the vegetation is likely to cause deterioration uality of surface or underground water.
Comments	Proposal is not likely to be at variance to this Principle The proposed clearing is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).
	Groundwater within the area under application is fresh to brackish, at between 1,000 - 3,000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). Given the small size of the proposed clearing, the quality of the groundwater is unlikely to be impacted by the proposed clearing activity.
	The proposed clearing area is relatively flat, and is not associated with any permanent watercourse or waterbody (GIS Database).
	The limited amount of clearing proposed (20 hectares), in comparison with the extent of the Port Hedland Coastal catchment area (which is approximately 744,301 hectares) is unlikely to result in deterioration in the quality of groundwater.
	Based on the above, the proposal is not likely to be at variance to this Principle.
Methodology	GIS Database: - Groundwater Salinity, Statewide - DOW.
	- Hydrographic Catchments - Catchments - DOW. - Public Drinking Water Source Areas (PDWSAs) - DOW. - Topographic Contours, Statewide - DOLA 12/09/02.
(j) Native v inciden	 Hydrographic Catchments - Catchments - DOW. Public Drinking Water Source Areas (PDWSAs) - DOW. Topographic Contours, Statewide - DOLA 12/09/02. regetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the ce or intensity of flooding.
(j) Native v inciden Comments	 Hydrographic Catchments - Catchments - DOW. Public Drinking Water Source Areas (PDWSAs) - DOW. Topographic Contours, Statewide - DOLA 12/09/02. regetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the ce or intensity of flooding. Proposal is not likely to be at variance to this Principle The limited amount of clearing proposed (20 hectares) in comparison with the extent of the Port Hedland coastal catchment area (which is approximately 744,301 hectares) is unlikely to result in an increase in peak flood height or flood peak duration.
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(j) Native v inciden Comments	 Hydrographic Catchments - Catchments - DOW. Public Drinking Water Source Areas (PDWSAs) - DOW. Topographic Contours, Statewide - DOLA 12/09/02. regetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the ce or intensity of flooding. Proposal is not likely to be at variance to this Principle The limited amount of clearing proposed (20 hectares) in comparison with the extent of the Port Hedland coastal catchment area (which is approximately 744,301 hectares) is unlikely to result in an increase in peak flood height or flood peak duration. The mean annual rainfall for the area is 400 millimetres, while the evaporation of the area is at around 3,500 millimetres per year (GIS Database). Therefore, it is unlikely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding. Based on the above, the proposal is not likely to be at variance to this Principle.
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(j) Native v inciden Comments Methodology Planning ins Comments	 Hydrographic Catchments - Catchments - DOW. Public Drinking Water Source Areas (PDWSAs) - DOW. Topographic Contours, Statewide - DOLA 12/09/02. regetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the ce or intensity of flooding. Proposal is not likely to be at variance to this Principle The limited amount of clearing proposed (20 hectares) in comparison with the extent of the Port Hedland coastal catchment area (which is approximately 744,301 hectares) is unlikely to result in an increase in peak flood height or flood peak duration. The mean annual rainfall for the area is 400 millimetres, while the evaporation of the area is at around 3,500 millimetres per year (GIS Database). Therefore, it is unlikely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding. Based on the above, the proposal is not likely to be at variance to this Principle. GIS Database: Evaporation Isopleths - BOM 09/98 Hydrographic Catchments - Catchments - DOW. Rainfall, Mean Annual - BOM 30/09/01. Strument, Native Title, Previous EPA decision or other matter. No relevant Environmental Impact Assessments have been conducted around the survey area. Advice was sought from the EPA regarding referral of this proposal, due to the proposed clearing areas being within a townsite, and with two kilometres of the shore. The EPA has advised that the proposal does not need to be formally referred, and can be managed under Part V of the <i>Environmental Protection Act 1986</i> .
(j) Native v inciden Comments Methodology Planning ins Comments	 Hydrographic Catchments - Catchments - DOW. Public Drinking Water Source Areas (PDWSAs) - DOW. Topographic Contours, Statewide - DOLA 12/09/02. regetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the ce or intensity of flooding. Proposal is not likely to be at variance to this Principle The limited amount of clearing proposed (20 hectares) in comparison with the extent of the Port Hedland coastal catchment area (which is approximately 744,301 hectares) is unlikely to result in an increase in peak flood height or flood peak duration. The mean annual rainfall for the area is 400 millimetres, while the evaporation of the area is at around 3,500 millimetres per year (GIS Database). Therefore, it is unlikely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding. Based on the above, the proposal is not likely to be at variance to this Principle. GIS Database: Evaporation Isopleths - BOM 09/98 Hydrographic Catchments - Catchments - DOW. Rainfall, Mean Annual - BOM 30/09/01. Rtrument, Native Title, Previous EPA decision or other matter. No relevant Environmental Impact Assessments have been conducted around the survey area. Advice was sought from the EPA regarding referral of this proposal, due to the proposal does not need to be formally referred, and can be managed under Part V of the <i>Environmental Protection Act 1986</i> . There have been two submissions received for this clearing permit. The issues raised in those submissions were:

	ca 2. is 3. ret	n provide eviden Proponent shoul undertaken in co Native vegetation ained as habitat	ce that an applic d ensure that the mpliance with th n is used by Abo for native fauna,	ation is not required under their State Agreement Act; e clearing does not interfere with any Aboriginal sites, and that any clearing e <i>Aboriginal Heritage Act 1972</i> ; and riginal people for bush tucker and medicine, and subsequently should be to enable the hunting activities to continue.
	Da Ap	mpier Salt is adv plication is requi	vised to liaise wit red for this proje	h the Town of Port Hedland to determine whether a Development ct.
	A I ha ap a S pro Ab	neritage survey h ve been identifie proximately 550 Section 18 cleara oponent's respon original Sites of 3	as been conduc d (Dampier Salt, metres north-ea nce, and was su sibility to ensure Significance are	tted for the proposed clearing areas, and no Aboriginal Sites of Significance 2007). The nearest registered Aboriginal Heritage Site (ID 23285) is located st of the proposed areas to be cleared (GIS Database). This area underwent ubsequently approved for disturbance in 2006 (Dampier Salt, 2007). It is the compliance with the <i>Aboriginal Heritage Act 1972</i> and to ensure that no disturbed as a result of the clearing process.
	Th Na gra pro no fau	ere are two nativ tional Native Titl anted in accordan oposed clearing a t a future act unc una are further ac	re title claims over e Tribunal (WC9 nce with the futu activity) has been ler the <i>Native Ti</i> ddressed under t	er the areas under application. These claims have been registered with the 9_003 and WC99_008) (GIS Database). However, the land tenure has been re act regime of the <i>Native Title Act 1993</i> and the nature of the act (i.e. the n provided for in that process, therefore the granting of a clearing permit is <i>the Act 1993</i> . The potential impacts of the proposed clearing on flora and the relevant clearing principles.
	A i an ex Ab int	response from Da d 3. The letter ou tensively used fo original heritage erested parties a	ampier Salt was utlines that the a r its operations. sites. The surve re invited by Da	made through their lawyers, Blake Dawson Waldron, to address issues 2 rea in question forms a part of Dampier Salt's principal mining lease, and is The area was comprehensively surveyed in 2005 to identify any potential by involved the local Aboriginal group on ground. The letter also states that mpier Salt to discuss any further concerns they have.
Methodolo	9 gy Da Gl - A - E - N	Impier Salt (2007 S Database: Iboriginal Sites o Invironmental Im Iative Title Claim	'). f Significance - E pact Assessmen s - DLI 7/11/05.	DIA. its.
4. Asso	essor's	recommendat	tions	
Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanica Removal	20	Grant	The proposal has been assessed against the clearing principles. The proposal may be at variance with principle (g). The proposal is not likely to be at variance with principles (a), (b), (c), (d), (f), (h), (i) and (j). The proposal is not at variance with principle (e).

The Assessing Officer recommends that the Clearing Permit be granted subject to the following conditions:

The Permit Holder shall record the following for each instance of clearing:

 a) the location of where the clearing occurred, expressed as grid coordinates using the Geocentric Datum of Australia 1994 coordinate system;
 b) the size of the area cleared in hectares;
 c) the dates on which the area was cleared;
 d) the area rehabilitated in hectares;
 e) the method of clearing; and
 f) the purpose of clearing.

2. The Permit Holder shall implement erosion control measures to minimise potential erosion within the areas approved to clear, and adjacent areas.

3. The Permit Holder shall implement weed control measures to prevent the establishment or spread of weeds within the areas approved to clear, and adjacent areas.

4. The Permit Holder shall provide a report to the Director, Environment Division, Department of Industry and Resources (DoIR) by 31 July each year, demonstrating adherence to all conditions of this permit, and setting out the records required under Condition 1 of this permit in relation to clearing carried out between 1 July and 30 June of the previous financial year. This report can be included as part of the Annual Environmental Report submitted to DoIR.

5. References

Biota (2006a) Port Hedland Solar Saltfield Expansion Botanical Survey - Flora and Vegetation Report, prepared for Dampier Salt Ltd, North Perth, Western Australia.

Biota (2006b) Port Hedland Solar Saltfield Expansion Fauna Survey - Fauna and Faunal Assemblages Report, prepared for Dampier Salt Ltd, North Perth, Western Australia.

Dampier Salt (2007) Application for a Purpose Clearing Permit on Mining Lease (State Agreement Act) ML250SA, additional information, unpublished report, Belmont, Western Australia.

Department of Natural Resources and Environment (2002) *Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local.* Department of Natural Resources and Environment, Victoria.

Department of the Environment and Water Resources (2007) A Directory of Important Wetlands in Australia, Leslie (Port Hedland) Saltfields System - WA068, http://www.environment.gov.au

Environmental Protection Authority (EPA) System 3 (1993) EPA Red Book Status Report. Report 15 on the Conservation Reserves for Western Australia. Environmental Protection Authority, Western Australia.

- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Kendrick, P. and Stanley, F. (2001) *Pilbara 4 (PIL4 Roebourne synopsis)*, in <u>Bioregional Summary of 2002 Biodiversity Audit</u> <u>for Western Australia</u>, edited by McKenzie, N.L., May, J.E. and McKenna, S. Department of Conservation and Land Management, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status.* Resource Management Technical Report 249 – updated 2005. Department of Agriculture, Western Australia.

6. Glossary

Acronyms:

Bureau of Meteorology, Australian Government.
Department of Conservation and Land Management, Western Australia.
Department of Agriculture and Food, Western Australia.
Department of Agriculture, Western Australia.
Department of Environment and Conservation
Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
Department of Environment Protection (now DoE). Western Australia.
Department of Indigenous Affairs
Department of Land Information, Western Australia.
Department of Environment, Western Australia.
Department of Industry and Resources, Western Australia.
Department of Land Administration, Western Australia.
Department of Water
Environment Protection Act 1986, Western Australia.
Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
Geographical Information System.
Interim Biogeographic Regionalisation for Australia.
International Union for the Conservation of Nature and Natural Resources - commonly known as the World
Conservation Union
Rights in Water and Irrigation Act 1914, Western Australia.
Section 17 of the Environment Protection Act 1986, Western Australia.
Threatened Ecological Communities.

Definitions:

{Atkins, K (2005). Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia} :-

- P1 Priority One Poorly Known taxa: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2 Priority Two Poorly Known taxa: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- **P3 Priority Three Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4 Priority Four Rare taxa: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.

R Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable): taxa which have been

adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

X Declared Rare Flora - Presumed Extinct taxa: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1 Schedule 1 Fauna that is rare or likely to become extinct: being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2 Fauna that is presumed to be extinct: being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3 Schedule 3 Birds protected under an international agreement: being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4 Other specially protected fauna: being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia} :-

- P1 Priority One: Taxa with few, poorly known populations on threatened lands: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 Priority Two: Taxa with few, poorly known populations on conservation lands: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3 Priority Three: Taxa with several, poorly known populations, some on conservation lands: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 Priority Four: Taxa in need of monitoring: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- **P5 Priority Five: Taxa in need of monitoring**: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of	threatened species (Environment Protection and Biodiversity Conservation Act 1999)
EX	Extinct: A native species for which there is no reasonable doubt that the last member of the species has died.
EX(W)	 Extinct in the wild: A native species which: (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
CR	Critically Endangered: A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
EN	 Endangered: A native species which: (a) is not critically endangered; and (b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
VU	 Vulnerable: A native species which: (a) is not critically endangered or endangered; and (b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
CD	Conservation Dependent: A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.