



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1718/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Silverglow Asset Pty Ltd

### 1.3. Property details

Property: LOT 2113 ON PLAN 249239 (Lot No. 2113 CHAPMAN SUNSET BEACH 6530)  
LOT 2114 ON PLAN 250832 (House No. 749 CHAPMAN SUNSET BEACH 6530)  
Local Government Area: City Of Geraldton  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
24.1		Mechanical Removal	Recreation

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard vegetation association 129 - Bare areas - drift sand. Beard vegetation association 359 - Shrublands; acacia and banksia Scrub. Beard vegetation association 440 - Shrublands; Acacia ligulata open scrub. (Hopkins et al. 2001, Shepherd et al. 2001).	The areas under application are sparsely vegetated with the condition of the vegetation varying between the foreshore dunes and the remaining vegetation behind the rear slopes. The rear slopes contain very little to no understorey and is dominated by Acacia species and the weed Lycium ferocissimum (boxthorn). The foreshore area contains mainly Spinifex longifolius, Olearia axillaris and some non-native species such as Tetragonia decumbens and boxthorn. (Application 2007) There are numerous tracks throughout the areas to be cleared. The foreshore area contains numerous exposed sand hills that have little or no vegetation. Photographs were taken of the vegetation under application. (DEC Site Visit Report 2007).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Kelghery 1994)	The nature and condition of the vegetation were assessed through a site visit (DEC Site Visit Report 2007) and from the information that was attached to the Application for Clearing (Application 2007).

## 3. Assessment of application against clearing principles

### (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 vegetation in the area under application is sparse with condition varying between the foreshore dunes and the remaining vegetation behind the rear slopes. The rear slopes contain very little to no understorey and is dominated by Acacia species and the weed Lycium ferocissimum (boxthorn). The foreshore area contains

mainly *Spinifex longifolius*, *Olearia axillaris* and some non-native species such as *Tetragonia decumbens* and boxthorn. (Application 2007) The foreshore area contains numerous exposed sand hills that have little or no vegetation. There are numerous tracks throughout the areas to be cleared. (DEC Site Visit Report 2007).

Considering factors such as poor diversity of plant species, degraded condition of the remaining vegetation, edge effects from surrounding residential and commercial landuses and isolation from areas of outstanding biodiversity, the area is not likely to be representative of high biodiversity.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.  
- Geraldton 50cm Orthomosaic - DLI01  
Application 2007  
DEC Site Visit Report 2007

**(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**

There are four known records of Threatened or Priority Fauna within a radius of 10km of the area under application, with the closest being located approximately 4.5km away from the proposal area. However, they are separated by residential and urban developments.

The area under application has poor diversity of plant species - *Acacia* species and the weed boxthorn dominate the rear dunes while the foreshore area contains mainly *Spinifex longifolius*, *Olearia axillaris* and some non-native species such as *Tetragonia decumbens* and boxthorn. The vegetation on rear dunes has little or no understorey. (Application 2007) There is little or no vegetation on sand hills on the foreshore. The remaining vegetation on the site is in a degraded condition and there are numerous tracks throughout the areas to be cleared. (DEC Site Visit Report 2007) The vegetated areas may provide shelter to animals living in the area; however residential and urban landuses such as housing schemes and road networks disconnect the area from other natural areas.

When factors such as edge effects from surrounding landuses, isolation from natural areas, degraded condition of the vegetation and disturbances to remaining vegetation from ever-present human activity are considered, it is unlikely that the area is a significant habitat for fauna.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- Threatened Fauna - CALM 30/09/05  
Application 2007  
DEC Site Visit Report 2007

**(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**

There are eleven known records of Declared Rare Flora (DRF), one record of Priority 1 flora, two records of Priority 2 flora, two records of Priority 3 flora and two records of Priority 4 flora within a radius of 10km of the area under application. The nearest of the DRF occurs approximately 6.8km away from the proposed clearing site. The soil type in the area under application differs from the soil types in which the DRF and Priority taxa occur. One population of the Priority 2 flora occurs on the same soil type as the area under application; however it occurs at a distance of about 2.4 km southeast of the area under application.

The proposal area is surrounded by road networks, residential developments and cleared areas, and is not connected to these populations of significant flora via corridors of native vegetation. The remaining vegetation occurs in a 'degraded' condition (DEC Site Visit Report 2007; Keighery 1994). Given these circumstances, the area under application is unlikely to have any significant flora.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- Declared Rare and Priority Flora list - CALM 01/07/05  
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05  
- Geraldton 50cm Orthomosaic - DLI01  
DEC Site Visit Report 2007  
Keighery 1994



**(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 four Threatened Ecological Communities (TEC's) located within 10km of the area under application. However, the soil type within the area under application differs from the soil type of the four known TEC's in the local area.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology GIS Databases:**

- Threatened Ecological Communities - CALM 12/04/05
- Soils, Statewide - DA 11/99

**(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 likely to be at variance to this Principle**

The vegetation in the areas under application is a component of Beard Vegetation Associations 129, 359 and 440 (Hopkins et al. 2001) of which there is 57.7%, 18.8% and 54.9% of the pre-European extent remaining, respectively (Shepherd et al. 2001a). The Shire of Greenough has 15.0% of pre-European extent remaining (Shepherd et al. 2001). The Geraldton Sandplains Bioregion has 42.2% of pre-European extent remaining (Shepherd et al. 2001a). The Shire of Greenough and Beard Vegetation Association 359 have a 'vulnerable' status of biodiversity conservation (Department of Natural Resources and Environment 2002).

The areas under application fall within EPA Position Statement No. 2 however it does not impact on this proposal as the clearing is not for agricultural purposes.

The areas under application are sparsely vegetated. The rear slopes contain very little to no understorey and is dominated by Acacia species and the weed boxthorn. The foreshore area contains mainly Spinifex longifolius, Olearia axillaris and some non-native species such as Tetragonia decumbens and boxthorn. (Application 2007) There are numerous tracks throughout the areas to be cleared. The vegetation towards the foreshore area becomes very sparse with numerous sand hills exposed with little or no vegetation in place. (DEC Site Visit Report 2007) The vegetation under application is unlikely to be significant as an area of remnant vegetation in the local area.

Therefore this proposal is not likely to be at variance to this Principle.

	Pre-European Reserves/CALM- area (ha)	Current extent (ha)	Remaining %*	Conservation status**	managed land,
%					
IBRA Bioregion - Geraldton Sandplains***			3,136,277	1,324,440	42.2
Depleted		35.6			
Shire - Greenough***	177,404	26,612	15.0	Vulnerable	Not available
City of Geraldton***	Not available	Not available	Not available	Not available	Not available
Beard veg type - 129	95,293	54,994	57.7%	Least concern	43.5
Beard veg type - 359	44,496	8,384	18.8	Vulnerable	0.0
Beard veg type - 440	4,209	2,311	54.9	Least concern	8.7

\* (Shepherd et al. 2001; 2001a)

\*\* (Department of Natural Resources and Environment 2002)

\*\*\* Area within Intensive Landuse Zone

**Methodology GIS Databases:**

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04
- EPA Position Paper No 2 Agriculture Region - DEP 12/00
- Hopkins et al. 2001
- Shepherd et al, 2001; 2001a.
- Department of Natural Resources and Environment, 2002
- Application 2007
- DEC Site Visit Report 2007

**(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 at variance to this Principle**

There are no watercourses or wetlands within the areas under application (DEC Site Visit Report 2007). The closest watercourse is the Chapman River, which is known to be a major non-perennial watercourse; however it occurs 1.1km south of the area under application.

Therefore, this application is not at variance to this Principle.

**Methodology GIS Databases:**

- Hydrography, linear - DoE 01/02/04  
- Hydrographic Catchments - Catchments - DoE 23/03/05  
DEC Site Visit Report 2007

**(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 sand hills closer to the foreshore area are exposed as they have little or no vegetation. The rear slopes are dominated by Acacia species and the weed boxthorn and contain very little to no understorey. (DEC Site Visit Report 2007) Other vegetated parts of the foreshore area contain mainly Spinifex longifolius, Olearia axillaris and some non-native species such as Tetragonia decumbens and boxthorn (Application 2007). The areas under application have an elevation of 10-15m near coastline, falling to 5m in the middle of the property and rising to 10m eastwards, leaving a slight depression in the central part of the proposal area. The chief soils in the areas under application are deep, red-brown loamy sands and clayey sands. The eastern boundary and the central depression in the areas under application have a medium risk of salinity on average. Approximately 50-60% of the areas under application have no risk of salinity. The water table in the area under application is likely to be below 1m AHD (DoW 2007b).

Considering the low average annual rainfall for the region (i.e. 500mm), and given the possibility of high rates of infiltration from sandy soils in the proposal area, flooding is unlikely to occur as a result of clearing.

Eutrophication of the coastal waters is unlikely as the area under application has no indication of agricultural landuse or domestic waste disposal.

Given the close proximity (50m) of the areas under application to sea water, it is reasonable to assume the groundwater to be considerably saline. Therefore clearing may not further intensify prevailing salinity levels in the areas under application.

DAFWA (2007) advised that 'The Commissioner would like to advise that there would be no land degradation issues associated with CPS 1718-1 and will not be providing formal comment as the area is for residential purposes'.

Given the high mobility of the sandy soils, the regular occurrence of strong coastal winds from all directions and the topography, wind erosion may become an issue as a result of vegetation clearing within the areas under application.

Therefore this application may be at variance to this Principle.

In order to address the potential of wind erosion, a condition will be placed on the Permit requiring the applicant to apply a suitable dust suppression product.

**Methodology GIS Databases:**

- Rainfall, Mean Annual - BOM 30/09/01  
- Salinity Risk LM 25m - DOLA 00  
- Soils, Statewide - DA 11/99  
Application 2007  
DEC Site Visit Report 2007  
DAFWA 2007  
DoW 2007b

**(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 Wokatherra Nature Reserve is situated approximately 6.8km northeast of the areas under application. The Cutubury Nature Reserve is situated approximately 9.7km southeast of the areas under application. An unnamed Nature Reserve is situated approximately 7.5km south/southwest of the areas under application. However, these are not connected to the areas under application through corridors of native vegetation. In



addition, there are no large areas of remnant vegetation that are linked to the areas under application.

There are 11 Environmentally Sensitive Areas (ESA's) that contain four different species of DRF that are situated within a radius of about 10km from the areas under application. However, the soil types where DRF occur differ from the soil type of the areas under application. Furthermore, the areas under application are not connected to these ESA's via corridors of native vegetation.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- CALM Regional Parks - CALM 12/04/02  
- CALM Managed Lands & Waters - CALM 01/07/05  
- Proposed National Parks FMP-CALM 19/03/03  
- Register of National Estate - EA 28/01/03  
- Soils, Statewide - DA 11/99  
- Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05

**(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.**

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

The areas under application are situated within the Coastal hydrographic catchment. The areas under application are not situated within a Public Drinking Water Source Area (PDWSA). The soils in the local area are sandy and on average, there is a medium risk of salinity in the areas under application. The site does not contain water courses or surface water expressions of groundwater (DEC Site Visit Report 2007). The water table in the proposal area is likely to be below 1m AHD (DoW 2007b).

Considering the close proximity of the areas under application to the ocean, it is plausible to assume that the quality of the underground water in the local area is saline. Therefore, clearing of vegetation in the areas under application is not likely to deteriorate the quality of underground water any further, as it is expected to be already saline.

The sandy soils in the areas under application are assumed to be highly permeable. Clearing under these conditions may increase groundwater recharge and the rising of the watertable. However, considering the relatively low average annual rainfall in the region (500mm) and depth to groundwater (below 1m AHD), clearing is not likely to cause a substantial recharge and watertable rise in the local area.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05  
- Hydrographic Catchments - Catchments - DOE 23/03/05  
- Hydrography, linear - DoE 01/02/04  
- Rainfall, Mean Annual - BOM 30/09/01  
DEC Site Visit Report 2007  
DoW 2007b

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

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

The elevation in the middle parts is slightly lower than the western and eastern sides of the proposal areas. The soils in the areas to be cleared are sandy. The site has no water courses or surface water expressions of groundwater (DEC Site Visit Report 2007). The depth to groundwater is likely to be 1m AHD (Dow 2007b).

Prevailing conditions such as rapidly draining sandy soils, a groundwater table below 1m AHD and low average annual regional rainfall (i.e. 500mm) suggest that flooding is unlikely to occur as a result of clearing in the areas under application.

Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- Rainfall, Mean Annual - BOM 30/09/01  
- Topographic Contours, Statewide - DOLA 12/09/02  
DEC Site Visit Report 2007  
DoW 2007b



## Planning instrument, Native Title, Previous EPA decision or other matter.

### Comments

City of Geraldton (2007) advised that 'Requirements are laid down for the clearing and grubbing of vegetation, stripping and stockpiling of topsoil and for the final trimming and finishing of surfaces of various purposes. The following guidelines should be followed as closely as possible: To clear as little of the Public Open Space (POS) as possible; To advise the developers to use appropriate control dust measures in Geraldton's windy climate (especially during the afternoon strong sea-breezes); To use the list of local plant species provided to them by local botanists as certain species listed in the Dune Stabilisation Plan are inappropriate, given local conditions; To retain as much of the natural vegetation as possible; Unless otherwise directed, to remove all the roots, logs, stumps, boulders, scrub and weeds (e.g. African Boxthorn), unsightly rubbish and other deleterious material from the site, be loaded, hauled and dumped at the landfill in accordance with statutory requirements; To grab out all tree stumps and roots, boulders and other deleterious material to a depth of 600mm below the natural surface or below subgrade over paved areas, whichever is greater. In considering the disposal of vegetation cleared from Subdivisional development sites, priority should be given to options other than burning, such as: Transplanting appropriate species; Chipping and mulching for soil stabilisation. Additionally it should be noted that pollution of the atmosphere by smoke generated from burning cleared vegetation on a Subdivisional development site is not acceptable. Where burning is the only practical alternative for the disposal of such cleared vegetation, it shall be undertaken strictly in accordance with the requirements of the Bush Fires Act 1954'.

The issue of wind erosion has been addressed in the assessment and a condition will be placed to use a dust suppression product to control dust blowouts.

DoW has advised that a Water Licence has been issued to Lot 2114 on Plan 250832 with an annual allocation of 17,500kL for the purpose of 'Irrigation of Public Open Space' containing Licence No. GWL162740, which expires on 31/12/2009 (DoW Advice 2007). DoW has advised that a current application for a water licence is in place for Lot 2113 on Plan 249239 (DoW Advice 2007a).

Maunsell Australia Pty Ltd (2007) submitted a Dune Stabilisation and Rehabilitation Plan. Maunsell is seemingly awaiting Shire approval for the Plan. The Plan identifies existing conditions, vegetation and fauna in the foreshore areas. It details the stabilisation and rehabilitation works programs required in areas along the foreshore and central mobile dunes. Section 2.1 of the Report makes reference to major earthworks required before reforming the eroded foredunes. The additional areas identified in the clearing application, i.e. areas outside of the proposed acacia brushing, relate to these earthworks, which are shown in the figure titled 'Dune Earthworks' (page 6 on the Report). The Report also details a five-year monitoring and management plan, including weed control, feral animal control, snake control, fire management and erosion control.

City of Geraldton (2007b) approval granted for bulk earthworks at Lot 2114 Chapman Road Sunset Beach.

There is no further requirement for a Works Approval or EP Act Licence for the areas under application.

There are three Native Title claims over the areas under the application. However, the areas under application are freehold land and therefore Native Title has been extinguished.

There are no Aboriginal Sites of Significance in the areas under application.

There are five Environmental Impact Assessments (EIA's) that cover the areas under application: CRN119444. Geraldton Region Plan. LoA 16. Not a Proposal Under Part IV - section 16 Report (no appeals). 07/01/1998.

CRN 220580. City of Geraldton TPS 3 Amendment 28 scheme text amendment to amend zoning table and heritage provisions. LoA 18. Scheme Amendment Not Assessed (no appeals). 05/10/2006.

CRN220555. City of Geraldton TPS 3 Amendment 35 text amendments. LoA 18. Scheme Amendment Not Assessed (no appeals). 21/09/2006.

CRN220625. City of Geraldton TPS 3 Amendment 25 textual and map amendments. LoA 18. Scheme Amendment Not Assessed (no appeals). 26/10/2006.

CRN220677. City of Geraldton TPS 3 Amendment 41 Increasing the car parking requirements within the city centre zone. LoA 18. Scheme Amendment Not Assessed (no appeals). 16/11/2006.

CRN119444 (Geraldton Region Plan) is the advice given by EPA to Planning Agencies. Geraldton Region Plan identifies proposed areas for infrastructure and proposed areas for conservation in the Midwest (Environmental Protection Authority 1998). However, the areas under application do not seem to have been identified as areas of interest in relation to proposed infrastructure plans or conservation issues. Therefore, the Geraldton Region Plan and other EIA's mentioned above do not appear to affect the clearing application.

### Methodology

GIS Databases:

- Aboriginal Sites of Significance - DIA 28/02/03
  - Environmental Impact Assessments - DOE 24/10/05
  - Native Title Claims - DLI 07/11/05
- City of Geraldton Submission 2007  
City of Geraldton 2007b



#### 4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Recreation	Mechanical Removal	24.1	The assessable criteria have been addressed and the proposal may be at variance to Principle g.  In order to address the potential of wind erosion, a condition will be placed on the Permit requiring the applicant to apply a suitable dust suppression product.

#### 5. References

- Application (2007) Information Submitted with the Application for Clearing. DEC TRIM Ref DOC13484.  
City of Geraldton Submission (2007) DEC TRIM Ref DOC16338.  
City of Geraldton Submission (2007b) Lot 2114 Chapman Road, Sunset Beach - Bulk Earthworks Approval. DEC TRIM Ref DOC30666.  
DAFWA (2007) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DEC TRIM Ref DOC20273.  
DEC Site Visit Report (2007) Department of Environment and Conservation (DEC), Western Australia. DEC TRIM ref DOC24056.  
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.  
DoW Advice (2007) DEC TRIM Ref DOC24445.  
DoW Advice (2007a) DEC TRIM Ref DOC24465.  
DoW Advice (2007b) DEC TRIM Ref DOC27528.  
Environmental Protection Authority (1998) Geraldton Region Plan. EPA Bulletin 898.  
Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.  
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.  
Maunsell Australia Pty Ltd. (2007) Dune Stabilisation and Rehabilitation Plan. DEC TRIM Ref DOC30431.  
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. Department of Agriculture, Western Australia.  
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).

#### 6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)

