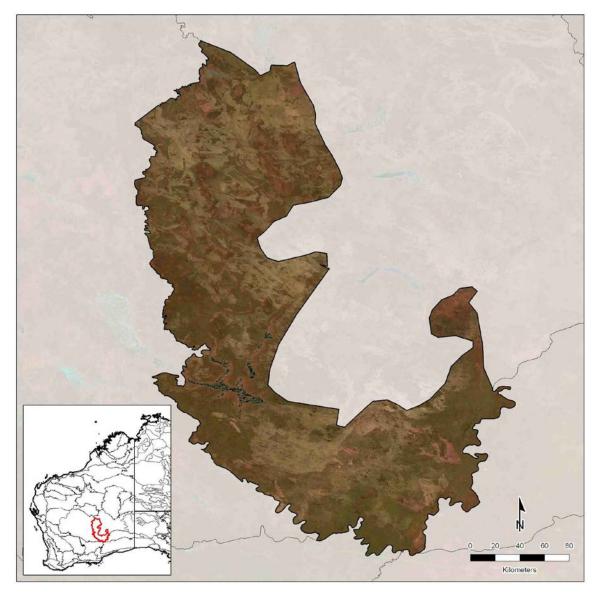
# Great Victoria Desert 1 Sub-region



Statistics and maps produced by GIS Branch, Department of Parks and Wildlife (2014)

Information on the methods used to generate the statistics is available here.

Note: the analysis was undertaken in 2012 under the auspices of the Department of Environment and Conservation. Therefore the acronym of "DEC" is used in this document.

# PROFILE OF SUB-REGION

## Total area of sub-region (ha)

Size of sub-region in	Percentage of WA covered by	Percentage of sub-region	Percentage of sub-region covered by	Percentage of sub-region within DEC-managed
WA (ha)	sub-region (%)	within WA (%)	intact habitat* (%)	conservation reserves (IUCN Ia - IV) (%)
4,741,855	1.88	100	100.00	

\*Intact habitat includes remnant vegetation and additional intact habitats (wetlands) not mapped in the remnant vegetation dataset.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: Percentage of sub-region within DEC-managed conservation reserves (IUCN Ia – IV).

### Remnant vegetation

		Extent of veget		Extent of add habitats (we mapped in t vegetatio	etlands) not he remnant	Total e	xtent
		(ha) (%) (ha) (%)				(ha)	(%)
Native vegetation on DEC-managed lands	Conservation reserves (IUCN Ia - IV)	332,470	7.01	0	0.00	332,470	7.01
	DEC-managed lands proposed for conservation	0	0.00	0	0.00	0	0.00
	Conservation reserves (IUCN V & VI)	0	0.00	0	0.00	0	0.00
	Other DEC-managed lands	0	0.00	0	0.00	0	0.00
Native vegetation on other public lands		3,607,583	76.08	0	0.00	3,607,583	76.08
Native vegetation on leasehold lands		799,035	16.85	0	0.00	799,035	16.85
Native vegetation on freehold lands		2,242	0.05	0	0.00	2,242	0.05
Native vegetation with no tenure category assigned		537	0.01	0	0.00	537	0.01
Cleared areas		-	-	-	-	0	0.00
Total		4,741,867	100	0	0	4,741,867	100

NB: some rounding errors may occur.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• <u>Statewide Vegetation Statistics (Full report)</u>. Statistic: Extent of Remnant Vegetation including on DEC-managed lands.

#### Tenure

				Extent (ha)			Extent (%)		Num	ber of rese	erves
			2002	2012	Change	2002	2012	Change	2002	2012	Change
DEC-managed	Conservation reserves (IUCN Ia - IV)		332,470	332,470	0	7.01	7.01	0.00	3	3	0
lands	DEC-managed lands proposed for										
	conservation		0	0	0	0.00	0.00	0.00	0	0	0
	Conservation reserves (IUCN V & VI)		0	0	0	0.00	0.00	0.00	0	0	0
	State forest / timber reserves		0	0	0	0.00	0.00	0.00	0	0	0
	Other DEC-managed lands		0	0	0	0.00	0.00	0.00	0	0	0
Other lands	Unallocated crown lands		2,863,072	2,928,131	65,059	60.38	61.75	1.37	-	-	-
	Other crown reserves		678,562	679,023	461	14.31	14.32	0.01	-	-	-
		Crown reserves vested in									
		Aboriginal Lands Trust*	-	671,972	-	-	14.17	-	-	-	-
l l	Pastoral leases^		864,530	799,035	-65,495	18.23	16.85	-1.38	-	-	-
		Pastoral leases held by									
		Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Other leasehold lands <sup>^</sup>		0	0	0	0.00	0.00	0.00	-	-	-
		General purpose leases held									
		by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Freehold lands		2,242	2,242	0	0.05	0.05	0.00	-	-	-
		Freehold lands held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Commonwealth lands (defence)	-	0	0	0	0.00	0.00	0.00	-	-	-
	Other public lands (roads and water										
	bodies)		0	429	429	0.00	0.01	0.01	-	-	-
	No tenure category assigned <sup>†</sup>		989	537	-452	0.02	0.01	-0.01	-	-	-
Total			4,741,865	4,741,867	-	100	100	-	3	3	-

NB: some rounding errors may occur.

\* Aboriginal Lands Trust data are only available for 2012. The extents shown are a subset of the category they sit below. These values should therefore not be summed since they are not mutually exclusive.

^ In 2002, there is not data to differentiate other leasehold lands. Therefore it is likely that the total extent shown for pastoral leases in 2002 includes both pastoral leases and other leasehold lands.

<sup>+</sup> The attributing of the state cadastral database has improved considerably over time. Therefore much of the land which had no tenure category assigned in 2002 will have been attributed and consequently distributed between other reporting categories in 2012. Much of this is expected to be distributed to the "Other public lands (roads and water bodies)" category, as road casings are progressively digitised and attributed, though increases in other categories is also possible as attributing improves.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: DEC-managed lands (extent only).

## Mining and petroleum

			IBR	A sub-regio	n			aged cons es (IUCN I		pro	DEC-managed lands proposed for conservation		DEC-managed conservation reserves (IUCN V & VI)			Other DEC-managed lands		
		2001/02	2001/02 % of IBRA sub- region	2012	2012 % of IBRA sub- region	Change^	2001/02	2012	Change	2001/02	2012	Change	2001/02	2012	Change	2001/02	2012	Change
Number of	Prospecting	33	N/A	40	N/A	7	0	0	0	0	0	0	0	0	0	0	0	0
mining (live)	Exploration	125	N/A	289	N/A	164	9	14	5	0	0	0	0	0	0	0	0	0
tenements	Mining	7	N/A	23	N/A	16	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	N/A	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of	Exploration	0	N/A	1	N/A	1	0	0	0	0	0	0	0	0	0	0	0	0
petroleum (active) titles	Production	0	N/A	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
Land area (ha)	Mining (live) tenements	597,026	12.59	2,621,516	55.28	42.69	54,041	231,766	177,725	0	0	0	0	0	0	0	0	0
	Petroleum (active) titles	0	0.00	223,648	4.72	4.72	0	0	0	0	0	0	0	0	0	0	0	0
	Mining (live) tenements and petroleum (active)																	
	titles*	597,026	12.59	2,667,716	56.26	43.67	54,041	231,766	177,725	0	0	0	0	0	0	0	0	0

\*An area of land can have over it both a mining tenement and petroleum title. The combined total represents the land area which is covered by a mining tenement or petroleum title or both.

^For the Land Area "Change" is calculated as the difference in % coverage at the IBRA sub-region scale of the two year dates.

### Current dominant land uses

		Extent (ha)			Extent (%)	
	1996/97	2005/06	Change	1996/97	2005/06	Change
Miscellaneous (non-intensive use)*	2,601,481	2,634,756	33,275	54.86	55.56	0.70
Pastoralism	1,174,370	1,141,552	-32,818	24.77	24.07	-0.70
Traditional indigenous use	585,372	585,364	-8	12.34	12.34	0.00
Conservation	376,630	376,743	113	7.94	7.95	0.01
Water (not classified)	4,015	3,453	-562	0.08	0.07	-0.01
Native forestry	0	0	0	0.00	0.00	0.00
Plantation forestry	0	0	0	0.00	0.00	0.00
Agriculture (intensive use)	0	0	0	0.00	0.00	0.00
Urban	0	0	0	0.00	0.00	0.00
Mining	0	0	0	0.00	0.00	0.00
Water (man-made/man modified)	0	0	0	0.00	0.00	0.00
No data	0	0	0	0.00	0.00	0.00
Total	4,741,868	4,741,868	-	100	100	-

NB: some rounding errors may occur.

\* Largely unmodified natural systems under various land uses. See detailed descriptions.

See the methods document available  $\underline{here}$  for definitions of the categories.

### Linear infrastructure

	Length (km)	Area of reporting region (ha)	Length per hectare (km/ha)
Roads (sub-region)	3,360	4,741,855	0.0007
Roads (Strategic Survey Roads in national parks,			
conservation parks and nature reserves)	204	332,470	0.0006
Railways (sub-region)	0	4,741,855	0.0000

## Complementary conservation initiatives to the formal conservation reserve system

		Extent (ha)			Extent (%)	
	2002	2012	Change	2002	2012	Change
Private conservation organisations' land	0	0	0	0.00	0.00	0.00
Nature Conservation covenants	0	0	0	0.00	0.00	0.00
Land for Wildlife properties	0	0	0	0.00	0.00	0.00
Combined total*	0	0	0	0.00	0.00	0.00

\* These conservation initiatives are not mutually exclusive. For example freehold land owned by a private conservation organisation may have a formal nature conservation covenant on its title. Therefore its area will be included in both category totals. The combined total represents the total extent of land which is covered by one or more initiative.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: Nature conservation covenants.

#### Indigenous

			Extent (ha)		Extent (%)			
		2002	2012	Change	2002	2012	Change	
Native Title determinations	On DEC-managed lands	0	0	0	0.00	0.00	0.00	
	On all other lands	0	0	0	0.00	0.00	0.00	
Commonwealth Indigenous Protected Areas		0	0	0	0.00	0.00	0.00	

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: Commonwealth Indigenous Protected Areas.

### Climate projection 2030, 2050 and 2070

#### Projected climate change scenarios (OzClim)

ANNUAL	Pro	jected (Avera	ge)	Change from	n Base Climate	e* (Average)	Change from Base Climate* (range)			
	2030	2050	2070	2030	2050	2070	2030	2050	2070	
	High impact s	cenario								
Minimum Temperature (degrees C)	14.34	16.12	18.21	1.65	3.43	5.51	1.45 - 1.84	3.01 - 3.82	4.84 - 6.14	
Maximum Temperature (degrees C)	29.14	31.22	33.65	1.92	4.00	6.43	1.67 - 2.11	3.48 - 4.42	5.60 - 7.10	
Precipitation (mm)	192.27	157.87	129.19	-46.89	-81.29	-109.96	-64.1026.10	-108.8044.20	-144.6058.70	
	Medium imp	act scenario								
Minimum Temperature (degrees C)	14.01	14.93	15.82	1.31	2.23	3.12	1.15 - 1.46	1.96 - 2.49	2.74 - 3.48	
Maximum Temperature (degrees C)	28.75	29.82	30.86	1.53	2.60	3.64	1.33 - 1.69	2.27 - 2.88	3.17 - 4.02	
Precipitation (mm)	on (mm) 200.32 179.62 162.			-38.85	-59.55	-76.18	-53.3021.80	-80.8032.90	-102.3041.50	

\* Base Climate is 1990

The Global Climate Change Model (GCM) used in both scenarios is CSIRO Mk3.5 (CSIRO: CSIRO Mk3.5 on OzClim).

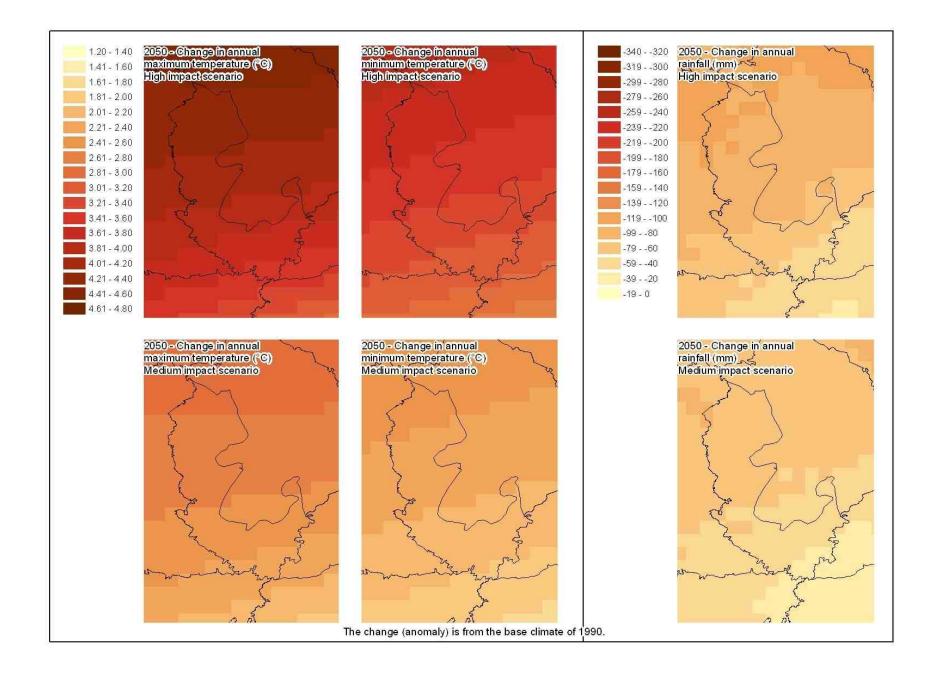
For more information see <a href="https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35">https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35</a>

#### Medium Impact Scenario:

- Emission Scenario: Medium CO<sub>2</sub> emissions, peaking around 2030 (SRES Marker Scenario A1B)
- *Climate Sensitivity (Rate of Global Warming):* Moderate rate of global warming corresponds to a global warming of 2.6°C for a doubling of CO2 from 280 ppm to 560 ppm.

High Impact Scenario:

- Emission Scenario: High CO2 emissions, increasing throughout the 21st century (SRES Marker Scenario A1FI)
- *Climate Sensitivity (Rate of Global Warming):* High rate of global warming corresponds to a global warming of 4.2°C for a doubling of CO2 from 280 ppm to 560 ppm.



# **BIODIVERSITY ASSETS**

### Native vegetation

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• <u>Statewide Vegetation Statistics (Full report)</u>. Statistic: All statistics except 'Currently remaining on other lands'.

Vegetation Association descriptions can be viewed here (worksheet "Veg Assoc Descriptions").

#### Dominant vegetation associations

Dominant vegetation associations are those which together occupied 85% of the sub-region at the time of European settlement (when sorted from largest to smallest).

	Percentage of	Pre-			Curren	tly remaining on DE	C-managed land	ls (ha)	Currently remaining on other lands (ha			
Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands	
1239	62.38	1,393,811	1,393,811	100.00	34,230	0	0	0	968,909	388,071	2,192	
84	48.70	876,299	876,299	100.00	132,827	0	0	0	717,990	25,482	0	
85	12.37	788,439	788,439	100.00	67,473	0	0	0	684,727	36,240	0	
18	2.53	502,397	502,397	100.00	1,415	0	0	0	366,529	134,294	30	
109	39.41	374,114	374,114	100.00	26,138	0	0	0	301,623	46,354	0	
39	2.30	151,986	151,986	100.00	0	0	0	0	128,940	23,046	0	

#### Unique vegetation associations

Unique vegetation associations are those which were largely restricted to only one sub-region at the time of European settlement (i.e.  $\geq$  85% of the vegetation association falls within one sub-region).

ĺ		Percentage of	Pre-			Currer	Currently remaining on DEC-managed lands (ha) Currently remaining on other I						
	Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands	
	444	100.00	11,241	11,241	100.00	4,168	0	0	0	7,073	0	0	

#### Rare vegetation associations

Rare vegetation associations are those which together occupied  $\leq$  1% of the state at the time of European settlement. The table below lists any rare vegetation associations which fall within this sub-region.

ſ		Percentage of Pre-			Currer	ntly remaining on DE	C-managed land	ls (ha)	Currently remaining on other lands (ha			
	Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
Ī	444	100.00	11,241	11,241	100.00	4,168	0	0	0	7,073	0	0