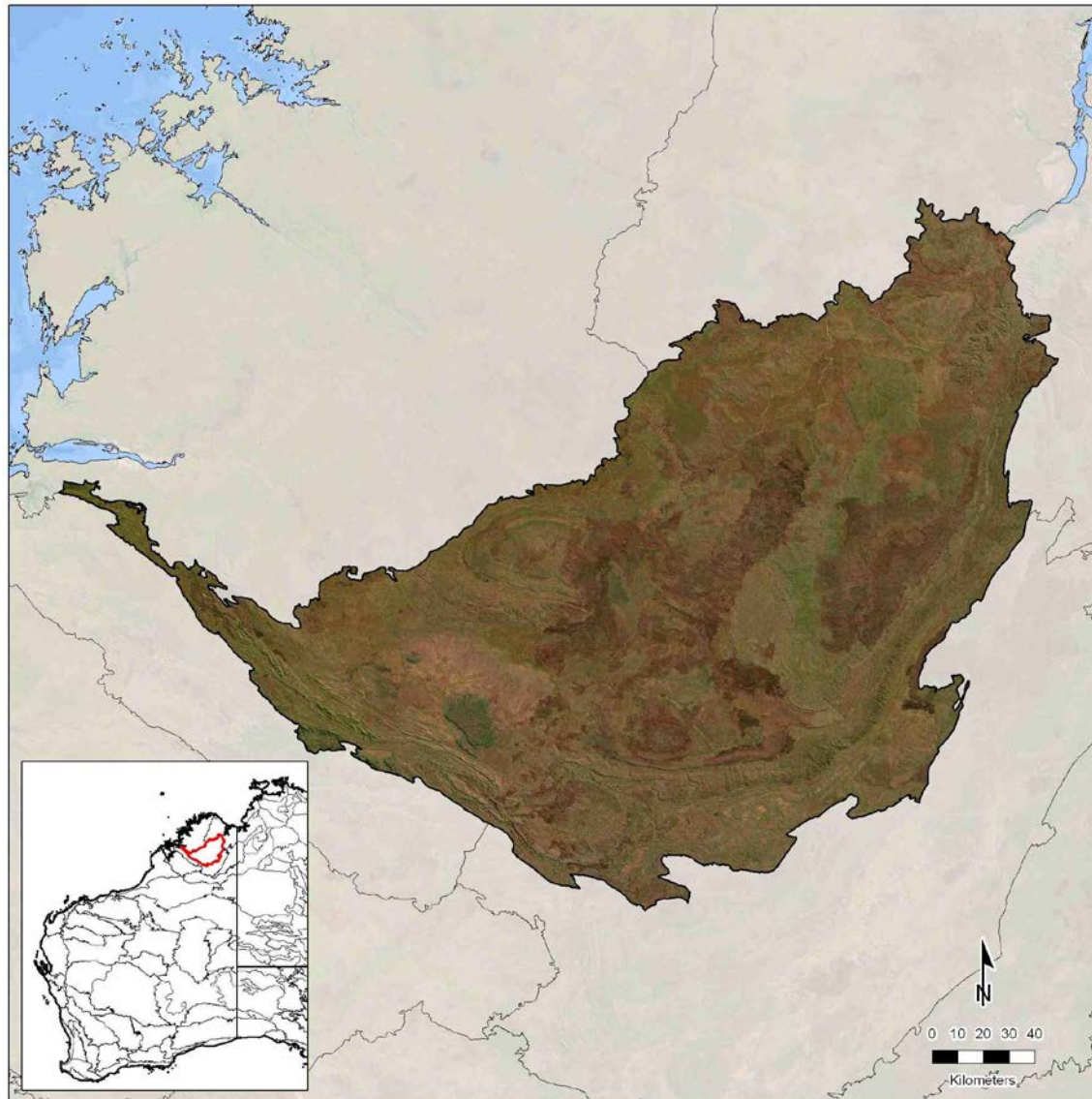


## Central Kimberley 1 Sub-region



*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 WA (ha)	Percentage of WA covered by sub-region (%)	Percentage of sub-region within WA (%)	Percentage of sub-region covered by intact habitat* (%)	Percentage of sub-region within DEC-managed conservation reserves (IUCN Ia - IV) (%)
4,397,260	1.74	100	100.00	6.01

\*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 remnant vegetation		Extent of additional intact habitats (wetlands) not mapped in the remnant vegetation dataset		Total extent	
		(ha)	(%)	(ha)	(%)	(ha)	(%)
Native vegetation on DEC-managed lands	Conservation reserves (IUCN Ia - IV)	264,458	6.01	0	0.00	264,458	6.01
	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		755,056	17.17	4	0.00	755,060	17.17
Native vegetation on leasehold lands		3,371,880	76.68	1	0.00	3,371,881	76.68
Native vegetation on freehold lands		5,504	0.13	0	0.00	5,504	0.13
Native vegetation with no tenure category assigned		98	0.00	73	0.00	171	0.00
Cleared areas		-	-	-	-	188	0.00
<b>Total</b>		<b>4,396,996</b>	<b>100</b>	<b>78</b>	<b>0</b>	<b>4,397,262</b>	<b>100</b>

NB: some rounding errors may occur.

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

- [Statewide Vegetation Statistics \(Full report\)](#). Statistic: Extent of Remnant Vegetation including on DEC-managed lands.

## Tenure

			Extent (ha)			Extent (%)			Number of reserves		
			2002	2012	Change	2002	2012	Change	2002	2012	Change
DEC-managed lands	Conservation reserves (IUCN Ia - IV)		264,617	264,458	-159	6.02	6.01	-0.01	1	1	0
	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		578,951	578,504	-447	13.17	13.16	-0.01	-	-	-
	Other crown reserves		149,987	148,730	-1,257	3.41	3.38	-0.03	-	-	-
		Crown reserves vested in Aboriginal Lands Trust*	-	26,159	-	-	0.59	-	-	-	-
	Pastoral leases^		3,372,928	3,371,156	-1,772	76.71	76.66	-0.05	-	-	-
		Pastoral leases held by Aboriginal Lands Trust*	-	10,385	-	-	0.24	-	-	-	-
	Other leasehold lands^		0	780	780	0.00	0.02	0.02	-	-	-
		General purpose leases held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Freehold lands		9	5,504	5,495	0.00	0.13	0.13	-	-	-
		Freehold lands held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Commonwealth lands (defence)		20,876	20,876	0	0.47	0.47	0.00	-	-	-
	Other public lands (roads and water bodies)		4,504	7,081	2,577	0.10	0.16	0.06	-	-	-
	No tenure category assigned†		5,389	171	-5,218	0.12	0.00	-0.12	-	-	-
<b>Total</b>			<b>4,397,261</b>	<b>4,397,260</b>	<b>-</b>	<b>100</b>	<b>100</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>-</b>

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.

† 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

		IBRA sub-region					DEC-managed conservation reserves (IUCN Ia - IV)			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 mining (live) tenements	Prospecting	11	N/A	1	N/A	-10	0	0	0	0	0	0	0	0	0	0	0	0
	Exploration	21	N/A	34	N/A	13	0	2	2	0	0	0	0	0	0	0	0	0
	Mining	3	N/A	0	N/A	-3	1	0	-1	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 petroleum (active) titles	Exploration	0	N/A	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	200,364	4.56	1,082,243	24.61	20.05	10	34,402	34,392	0	0	0	0	0	0	0	0	0
	Petroleum (active) titles	0	0.00	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0
	Mining (live) tenements and petroleum (active) titles*	200,364	4.56	1,082,243	24.61	20.05	10	34,402	34,392	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
Pastoralism	3,640,134	3,174,876	-465,258	82.78	72.20	-10.58
Miscellaneous (non-intensive use)*	730,238	904,434	174,196	16.61	20.57	3.96
Conservation	2,525	266,570	264,045	0.06	6.06	6.00
Traditional indigenous use	23,490	50,646	27,156	0.53	1.15	0.62
Water (not classified)	756	736	-20	0.02	0.02	0.00
Urban	118	0	-118	0.00	0.00	0.00
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
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
<b>Total</b>	<b>4,397,261</b>	<b>4,397,262</b>	<b>-</b>	<b>100</b>	<b>100</b>	<b>-</b>

NB: some rounding errors may occur.

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

See the methods document available [here](#) for definitions of the categories.

## Linear infrastructure

	Length (km)	Area of reporting region (ha)	Length per hectare (km/ha)
Roads (sub-region)	2,824	4,397,260	0.0006
Roads (Strategic Survey Roads in national parks, conservation parks and nature reserves)	156	264,458	0.0006
Railways (sub-region)	0	4,397,260	0.0000

## Complementary conservation initiatives to the formal conservation reserve system

	Extent (ha)			Extent (%)		
	2002	2012	Change	2002	2012	Change
Private conservation organisations' land	313,362	872,257	558,895	7.13	19.84	12.71
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*	313,362	872,257	558,895	7.13	19.84	12.71

\* 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	115,932	115,932	0.00	2.64	2.64
	On all other lands	0	2,343,803	2,343,803	0.00	53.30	53.30
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	Projected (Average)			Change from Base Climate* (Average)			Change from Base Climate* (range)		
	2030	2050	2070	2030	2050	2070	2030	2050	2070
	High impact scenario								
Minimum Temperature (degrees C)	20.78	22.32	24.13	1.43	2.97	4.78	1.26 - 1.57	2.61 - 3.27	4.21 - 5.26
Maximum Temperature (degrees C)	35.45	37.26	39.39	1.68	3.49	5.62	1.45 - 1.85	3.01 - 3.84	4.84 - 6.18
Precipitation (mm)	724.24	648.76	574.19	-83.11	-158.59	-233.15	-126.10 - -57.50	-240.00 - -109.10	-351.90 - -160.10
	Medium impact scenario								
Minimum Temperature (degrees C)	20.49	21.28	22.06	1.14	1.93	2.71	1.00 - 1.25	1.70 - 2.13	2.38 - 2.98
Maximum Temperature (degrees C)	35.11	36.04	36.95	1.34	2.27	3.18	1.15 - 1.47	1.96 - 2.50	2.74 - 3.50
Precipitation (mm)	739.99	698.07	660.87	-67.35	-109.28	-146.47	-102.20 - -46.70	-165.70 - -75.40	-221.80 - -100.90

\* 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 <https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35>

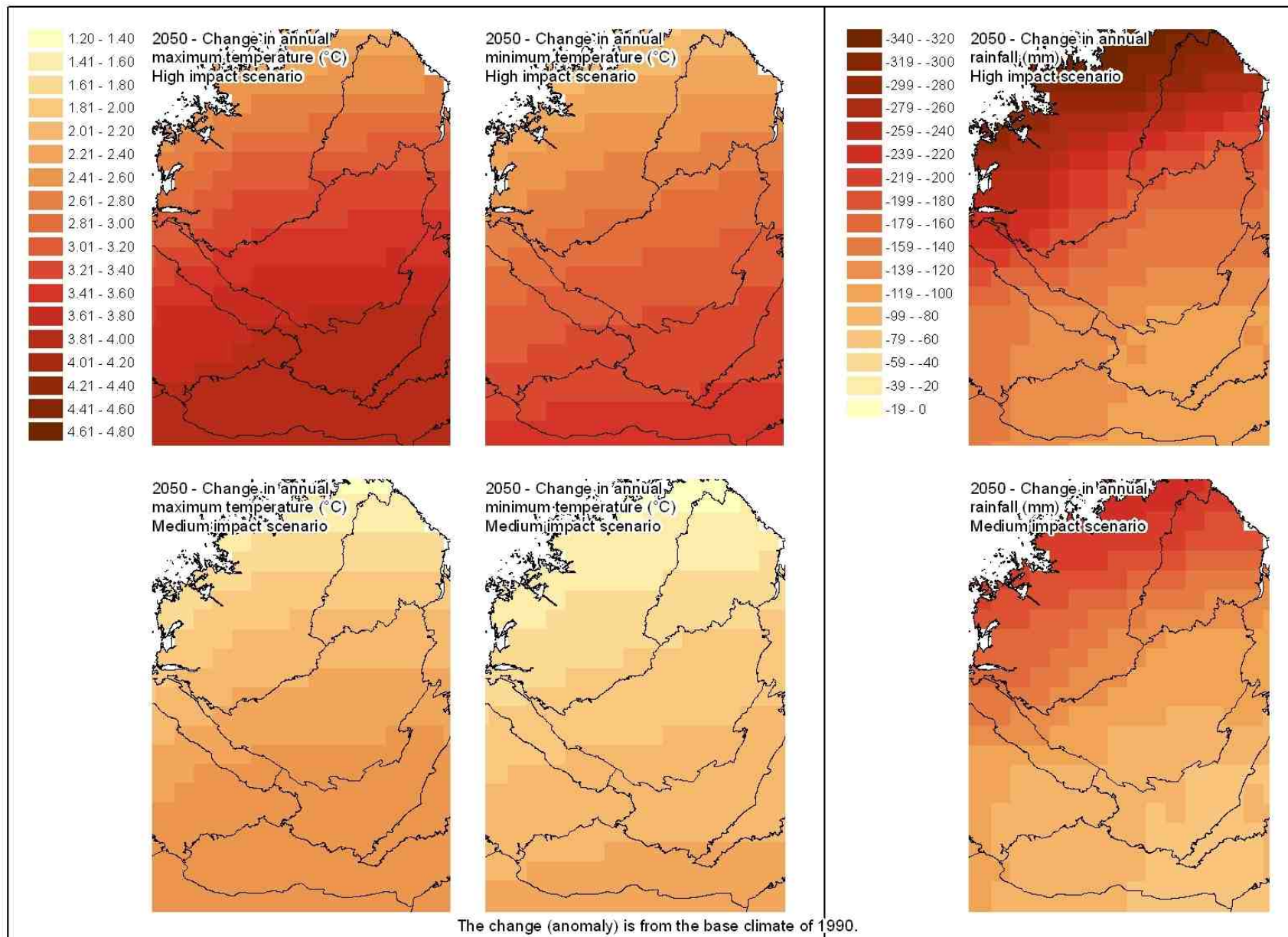
#### Medium Impact Scenario:

- *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 CO<sub>2</sub> from 280 ppm to 560 ppm.

#### High Impact Scenario:

- *Emission Scenario:* High CO<sub>2</sub> 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 CO<sub>2</sub> 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:

- [Statewide Vegetation Statistics \(Full report\)](#). 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).

Beard's veg assoc no.	Percentage of veg assoc within sub- region (%)	Pre- European extent (ha)	Current extent (ha)	Percentage remaining (%)	Currently remaining on DEC-managed lands (ha)				Currently remaining on other lands (ha)		
					IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
75	99.78	1,956,790	1,956,754	100.00	0	0	0	0	539,285	1,415,462	2,001
738	99.26	607,343	607,343	100.00	81,391	0	0	0	73,683	452,157	108
739	25.98	547,113	547,089	100.00	94,844	0	0	0	59,230	389,990	3,024
808	19.87	238,779	238,779	100.00	10,603	0	0	0	6,720	221,457	0
802	43.95	153,363	153,358	100.00	101	0	0	0	22,828	130,429	0
888	85.00	148,338	148,338	100.00	0	0	0	0	180	148,157	0
806	100.00	137,965	137,965	100.00	4,357	0	0	0	6,652	126,956	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).

Beard's veg assoc no.	Percentage of veg assoc within sub-region (%)	Pre-European extent (ha)	Current extent (ha)	Percentage remaining (%)	Currently remaining on DEC-managed lands (ha)				Currently remaining on other lands (ha)		
					IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
806	100.00	137,965	137,965	100.00	4,357	0	0	0	6,652	126,956	0
804	100.00	74,206	74,206	100.00	0	0	0	0	6,547	67,659	0
858	100.00	69,257	69,257	100.00	0	0	0	0	1,236	68,021	0
887	100.00	43,909	43,909	100.00	0	0	0	0	0	43,909	0
884	100.00	43,042	43,042	100.00	0	0	0	0	5,618	37,424	0
829	100.00	12,182	12,182	100.00	0	0	0	0	0	12,182	0
809	100.00	12,167	12,167	100.00	0	0	0	0	1,021	11,146	0
805	100.00	7,740	7,740	100.00	0	0	0	0	2,005	5,735	0
855	100.00	4,188	4,188	100.00	0	0	0	0	0	4,188	0
856	100.00	3,405	3,405	100.00	0	0	0	0	1,521	1,884	0
75	99.78	1,956,790	1,956,754	100.00	0	0	0	0	539,285	1,415,462	2,001
740	99.43	94,722	94,722	100.00	70,638	0	0	0	5,627	18,457	0
738	99.26	607,343	607,343	100.00	81,391	0	0	0	73,683	452,157	108
854	89.46	49,708	49,708	100.00	468	0	0	0	1,736	47,504	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.

Beard's veg assoc no.	Percentage of veg assoc within sub- region (%)	Pre- European extent (ha)	Current extent (ha)	Percentage remaining (%)	Currently remaining on DEC-managed lands (ha)				Currently remaining on other lands (ha)		
					IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
807	30.59	644	644	100.00	0	0	0	0	255	389	0
720	33.15	1,418	1,418	100.00	1,418	0	0	0	0	0	0
12	18.80	1,612	1,612	100.00	0	0	0	0	0	1,612	0
856	100.00	3,405	3,405	100.00	0	0	0	0	1,521	1,884	0
855	100.00	4,188	4,188	100.00	0	0	0	0	0	4,188	0
743	64.89	7,244	7,244	100.00	0	0	0	0	15	7,229	0
838	52.43	7,508	7,508	100.00	0	0	0	0	2,834	4,674	0
805	100.00	7,740	7,740	100.00	0	0	0	0	2,005	5,735	0
809	100.00	12,167	12,167	100.00	0	0	0	0	1,021	11,146	0
829	100.00	12,182	12,182	100.00	0	0	0	0	0	12,182	0