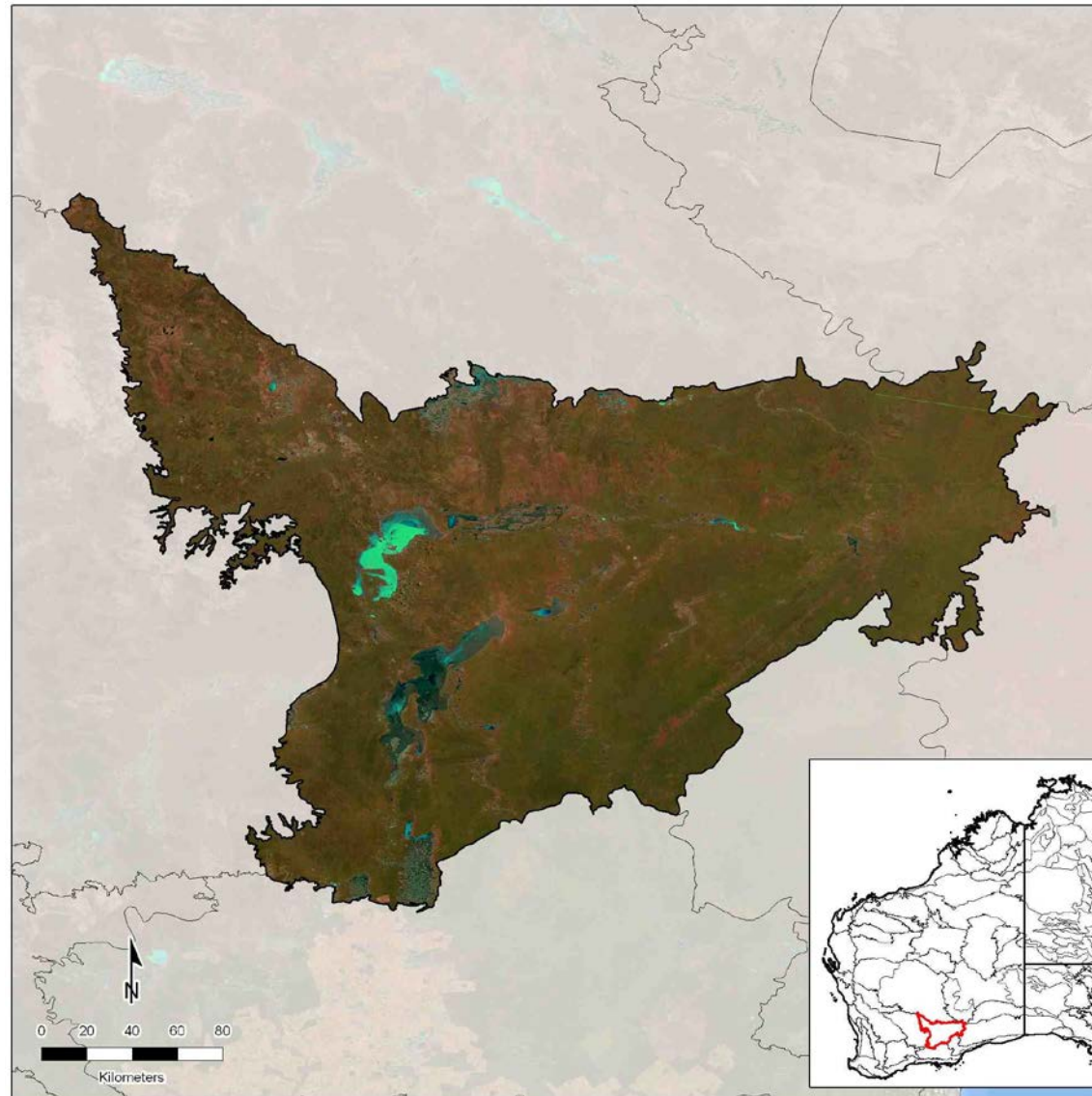


Coolgardie 3 Sub-region



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) (%)
5,058,246	2.00	100	99.47	3.82

*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)	193,215	3.82	0	0.00	193,215	3.82
	DEC-managed lands proposed for conservation	126,649	2.50	0	0.00	126,649	2.50
	Conservation reserves (IUCN V & VI)	66,860	1.32	0	0.00	66,860	1.32
	Other DEC-managed lands	32,653	0.65	0	0.00	32,653	0.65
Native vegetation on other public lands		2,493,172	49.29	0	0.00	2,493,172	49.29
Native vegetation on leasehold lands		2,006,253	39.66	0	0.00	2,006,253	39.66
Native vegetation on freehold lands		112,719	2.23	10	0.00	112,729	2.23
Native vegetation with no tenure category assigned		7	0.00	0	0.00	7	0.00
Cleared areas		-	-	-	-	26,708	0.53
Total		5,031,528	99	10	0	5,058,246	100

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)		191,182	193,226	2,044	3.78	3.82	0.04	10	13	3
	DEC-managed lands proposed for conservation		1,701	126,789	125,088	0.03	2.51	2.48	1	2	1
	Conservation reserves (IUCN V & VI)		0	66,866	66,866	0.00	1.32	1.32	0	8	8
	State forest / timber reserves		32,881	32,818	-63	0.65	0.65	0.00	6	6	0
	Other DEC-managed lands		66,920	< 0.50	-66,920	1.32	< 0.01	-1.32	12	1	-11
Other lands	Unallocated crown lands		2,128,820	2,125,543	-3,277	42.09	42.02	-0.07	-	-	-
	Other crown reserves		235,314	233,097	-2,217	4.65	4.61	-0.04	-	-	-
		Crown reserves vested in Aboriginal Lands Trust*	-	97,707	-	-	1.93	-	-	-	-
	Pastoral leases^		1,896,355	1,773,691	-122,664	37.49	35.07	-2.42	-	-	-
		Pastoral leases held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Other leasehold lands^		0	239,999	239,999	0.00	4.74	4.74	-	-	-
		General purpose leases held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Freehold lands		353,016	116,869	-236,147	6.98	2.31	-4.67	-	-	-
		Freehold lands held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Commonwealth lands (defence)		181	182	1	0.00	0.00	0.00	-	-	-
	Other public lands (roads and water bodies)		142,234	149,152	6,918	2.81	2.95	0.14	-	-	-
	No tenure category assigned†		9,644	15	-9,629	0.19	0.00	-0.19	-	-	-
Total			5,058,248	5,058,247	-	100	100	-	29	30	-

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	1,528	N/A	2,113	N/A	585	9	13	4	86	140	54	24	26	2	96	109	13
	Exploration	514	N/A	1,021	N/A	507	19	49	30	27	63	36	11	26	15	22	35	13
	Mining	1,438	N/A	1,689	N/A	251	12	15	3	26	34	8	2	19	17	35	43	8
	Other	2	N/A	1	N/A	-1	0	0	0	0	0	0	0	0	0	0	0	0
Number of petroleum (active) titles	Exploration	0	N/A	1	N/A	1	0	1	1	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	1,140,827	22.55	3,935,264	77.80	55.25	7,261	168,941	161,680	31,993	105,106	73,113	4,757	47,605	42,848	16,884	27,335	10,451
	Petroleum (active) titles	0	0.00	11,300	0.22	0.22	0	215	215	0	0	0	0	0	0	0	0	0
	Mining (live) tenements and petroleum (active) titles*	1,140,827	22.55	3,937,677	77.85	55.30	7,261	168,941	161,680	31,993	105,106	73,113	4,757	47,605	42,848	16,884	27,335	10,451

*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)*	2,091,061	2,683,065	592,004	41.34	53.04	11.70
Pastoralism	2,271,904	1,745,358	-526,546	44.91	34.51	-10.40
Conservation	409,652	412,918	3,266	8.10	8.16	0.06
Water (not classified)	92,859	88,795	-4,064	1.84	1.76	-0.08
Traditional indigenous use	87,855	87,863	8	1.74	1.74	0.00
Native forestry	87,563	25,200	-62,363	1.73	0.50	-1.23
Mining	7,990	9,580	1,590	0.16	0.19	0.03
Agriculture (intensive use)	7,673	2,269	-5,404	0.15	0.04	-0.11
Urban	1,691	1,800	109	0.03	0.04	0.01
Water (man-made/man modified)	0	1,400	1,400	0.00	0.03	0.03
Plantation forestry	0	0	0	0.00	0.00	0.00
No data	0	0	0	0.00	0.00	0.00
Total	5,058,248	5,058,248	-	100	100	-

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)	11,408	5,058,246	0.0023
Roads (Strategic Survey Roads in national parks, conservation parks and nature reserves)	81	193,226	0.0004
Railways (sub-region)	633	5,058,246	0.0001

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	741	741	0.00	0.01	0.01
Combined total*	0	741	741	0.00	0.01	0.01

* 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	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)	12.52	14.08	15.91	1.45	3.01	4.84	1.26 - 1.65	2.63 - 3.43	4.21 - 5.52
Maximum Temperature (degrees C)	26.97	28.77	30.89	1.67	3.48	5.59	1.43 - 1.93	2.98 - 4.00	4.79 - 6.44
Precipitation (mm)	234.87	206.58	183.82	-38.90	-67.17	-89.96	-56.60 - -25.70	-98.30 - -43.50	-132.50 - -57.90
	Medium impact scenario								
Minimum Temperature (degrees C)	12.23	13.03	13.81	1.15	1.96	2.74	1.01 - 1.31	1.71 - 2.23	2.39 - 3.13
Maximum Temperature (degrees C)	26.63	27.56	28.46	1.33	2.26	3.17	1.14 - 1.53	1.94 - 2.61	2.71 - 3.65
Precipitation (mm)	241.56	224.39	210.75	-32.21	-49.38	-63.02	-46.80 - -21.40	-72.00 - -32.30	-92.20 - -40.90

* Base Climate is 1990

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

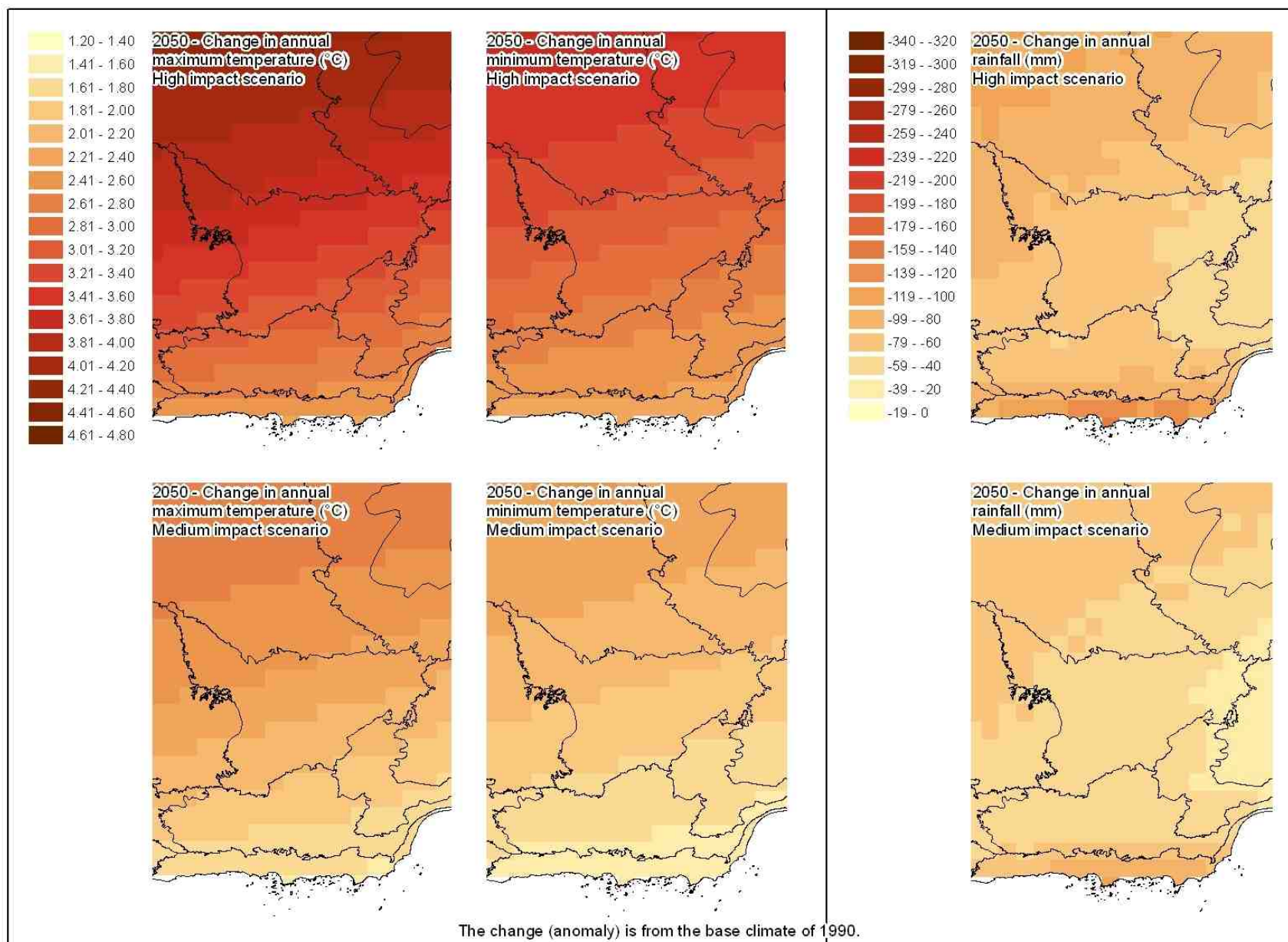
For more information see <https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35>

Medium Impact Scenario:

- *Emission Scenario:* Medium CO₂ 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:

- [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
481	99.93	809,118	809,020	99.99	17	0	42,073	0	397,943	354,114	14,874
468	81.48	482,362	474,365	98.34	610	101,037	2,417	2,256	121,172	226,772	20,098
524	93.60	325,305	325,287	99.99	128,466	0	0	406	178,794	17,134	487
936	44.49	310,898	308,460	99.22	4,987	1,430	4,768	2,328	155,468	123,055	16,424
125	8.70	303,091	300,446	99.13	9,432	171	0	61	206,749	83,172	862
467	98.46	278,030	278,030	100.00	0	0	0	0	232,552	44,272	1,206
109	27.91	264,908	264,900	100.00	60	0	5,868	0	210,715	45,583	2,675
525	100.00	236,385	236,385	100.00	0	0	0	0	182,271	54,114	0
9	97.73	235,047	229,757	97.75	3,671	0	5,542	9,768	93,710	84,264	32,796
8	32.55	226,086	225,022	99.53	14,556	1,363	0	0	84,942	123,352	810
522	29.33	208,175	207,714	99.78	897	61	2,584	659	191,184	10,973	1,356
509	99.95	145,521	145,376	99.90	16,075	0	0	0	60,675	68,349	277
676	5.65	116,554	116,537	99.99	0	0	0	0	63,331	53,192	13
1413	6.43	107,975	107,728	99.77	7	7,041	1,071	0	80,434	18,723	453
506	100.00	98,187	98,050	99.86	1,736	2,196	0	8,641	373	80,950	4,154
500	98.78	97,729	97,718	99.99	813	0	0	0	9,610	86,891	404
521	73.75	90,020	90,020	100.00	0	0	0	0	6,461	83,560	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
525	100.00	236,385	236,385	100.00	0	0	0	0	182,271	54,114	0
506	100.00	98,187	98,050	99.86	1,736	2,196	0	8,641	373	80,950	4,154
1241	100.00	10,479	10,389	99.14	0	0	0	0	5	9,797	586
123	100.00	9,090	8,902	97.93	0	0	0	0	1,196	6,705	1,001
505	100.00	7,847	7,847	100.00	0	0	0	0	0	7,847	0
1294	100.00	6,296	6,047	96.05	115	0	0	0	4,467	1,191	274
542	100.00	4,890	4,890	100.00	0	0	877	0	0	1,570	2,442
3106	100.00	52,660	51,602	97.99	3,120	0	0	906	47,225	0	350
509	99.95	145,521	145,376	99.90	16,075	0	0	0	60,675	68,349	277
481	99.93	809,118	809,020	99.99	17	0	42,073	0	397,943	354,114	14,874
488	99.86	37,940	37,940	100.00	0	0	0	0	18,201	19,739	0
513	99.82	15,857	15,854	99.98	5,361	0	0	0	2,737	7,580	177
489	99.64	78,320	78,320	100.00	0	0	0	0	1,020	76,760	540
500	98.78	97,729	97,718	99.99	813	0	0	0	9,610	86,891	404
2901	98.49	35,470	33,996	95.84	0	1,206	0	0	11,827	20,905	58
467	98.46	278,030	278,030	100.00	0	0	0	0	232,552	44,272	1,206
9	97.73	235,047	229,757	97.75	3,671	0	5,542	9,768	93,710	84,264	32,796
524	93.60	325,305	325,287	99.99	128,466	0	0	406	178,794	17,134	487
501	91.36	43,871	43,738	99.70	0	0	0	6,766	12,173	24,484	315
2009	88.40	6,239	6,059	97.11	0	0	0	0	2,467	3,538	53

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
25	34.13	4,698	4,666	99.32	12	0	0	0	0	2,345	2,308
542	100.00	4,890	4,890	100.00	0	0	877	0	0	1,570	2,442
507	61.57	5,791	5,791	100.00	0	0	0	0	121	5,670	0
2009	88.40	6,239	6,059	97.11	0	0	0	0	2,467	3,538	53
1294	100.00	6,296	6,047	96.05	115	0	0	0	4,467	1,191	274
505	100.00	7,847	7,847	100.00	0	0	0	0	0	7,847	0
123	100.00	9,090	8,902	97.93	0	0	0	0	1,196	6,705	1,001
1241	100.00	10,479	10,389	99.14	0	0	0	0	5	9,797	586
513	99.82	15,857	15,854	99.98	5,361	0	0	0	2,737	7,580	177