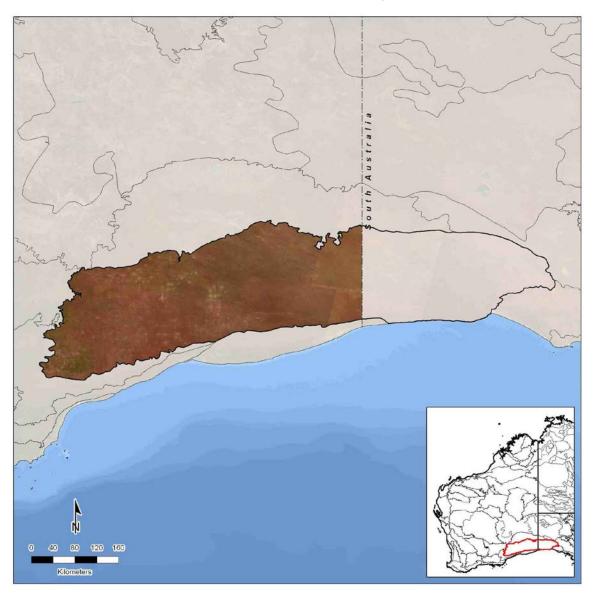
# Nullarbor 2 Sub-region



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) (%)
8,670,927	3.43	68	100.00	4.49

<sup>\*</sup>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:

• <u>DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report</u>. 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 extent	
		(ha) (%) (ha) (%)				(ha)	(%)
Native vegetation on DEC-managed lands	Conservation reserves (IUCN Ia - IV)	389,408	4.49	1	0.00	389,409	4.49
	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		3,558,203	41.04	0	0.00	3,558,203	41.04
Native vegetation on leasehold lands		4,698,957	54.19	0	0.00	4,698,957	54.19
Native vegetation on freehold lands		23,974	0.28	0	0.00	23,974	0.28
Native vegetation with no tenure category assigned		0	0.00	0	0.00	0	0.00
Cleared areas		-	-	-	-	385	0.00
Total		8,670,542	100	1	0	8,670,928	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 res	erves
			2002	2012	Change	2002	2012	Change	2002	2012	Change
DEC-managed	Conservation reserves (IUCN Ia - IV)		389,743	389,650	-93	4.49	4.49	0.00	2	2	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		3,551,967	3,549,957	-2,010	40.96	40.94	-0.02	-	-	-
	Other crown reserves		8,094	8,094	0	0.09	0.09	0.00	-	-	-
		Crown reserves vested in									
		Aboriginal Lands Trust*	-	5,188	-	-	0.06	-	-	-	-
	Pastoral leases^		4,699,591	4,699,024	-567	54.20	54.19	-0.01	-	ı	-
		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		21,266	23,974	2,708	0.25	0.28	0.03	-	-	-
		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)		9	229	220	0.00	0.00	0.00	-	-	-
	No tenure category assigned <sup>†</sup>		258	0	-258	0.00	0.00	0.00	-	-	-
Total			8,670,928	8,670,928	-	100	100	-	2	2	-

NB: some rounding errors may occur.

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).

<sup>\*</sup> 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.

<sup>^</sup> 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.

## Mining and petroleum

			IBR	A sub-regio	on		conser	C-manage vation res JCN Ia - I\	serves	pro	anaged posed f nservati	or	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	4	N/A	1	N/A	-3	0	0	0	0	0	0	0	0	0	0	0	0
mining (live)	Exploration	9	N/A	26	N/A	17	0	0	0	0	0	0	0	0	0	0	0	0
tenements	Mining	4	N/A	2	N/A	-2	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	0	N/A	0	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	78,044	0.90	435,432	5.02	4.12	0	0	0	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*	78,044	0.90	435,432	5.02	4.12	0	0	0	0	0	0	0	0	0	0	0	0

<sup>\*</sup>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.

<sup>^</sup>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	5,270,826	5,240,024	-30,802	60.79	60.43	-0.36
Miscellaneous (non-intensive use)*	2,982,161	3,010,494	28,333	34.39	34.72	0.33
Conservation	412,224	411,445	-779	4.75	4.75	0.00
Traditional indigenous use	4,765	4,887	122	0.05	0.06	0.01
Water (not classified)	845	3,878	3,033	0.01	0.04	0.03
Agriculture (intensive use)	0	200	200	0.00	0.00	0.00
Urban	106	0	-106	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
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	8,670,927	8,670,928	-	100	100	•

NB: some rounding errors may occur.

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

## Linear infrastructure

	Length (km)	Area of reporting region (ha)	Length per hectare (km/ha)
Roads (sub-region)	10,125	8,670,927	0.0012
Roads (Strategic Survey Roads in national parks,			
conservation parks and nature reserves)	129	389,650	0.0003
Railways (sub-region)	467	8,670,927	0.0001

<sup>\*</sup> Largely unmodified natural systems under various land uses. See detailed descriptions.

## 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

<sup>\*</sup> 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 fron	n Base Climate	* (Average)	Chan	ge from Base Climate*	(range)
	2030	2050	2070	2030	2050	2070	2030	2050	2070
	High impact	scenario							
Minimum Temperature (degrees C)	12.30	13.71	15.37	1.31	2.72	4.37	1.14 - 1.46	2.38 - 3.03	3.82 - 4.87
Maximum Temperature (degrees C)	26.92	28.54	30.43	1.50	3.11	5.00	1.23 - 1.72	2.55 - 3.58	4.11 - 5.76
Precipitation (mm)	198.92	176.89	159.02	-31.15	-53.17	-71.05	-48.8021.30	-85.8036.00	-117.2047.30
	Medium imp	act scenario							
Minimum Temperature (degrees C)	12.04	12.77	13.47	1.04	1.77	2.48	0.91 - 1.16	1.55 - 1.97	2.16 - 2.76
Maximum Temperature (degrees C)	26.62	27.45	28.26	1.19	2.02	2.83	0.98 - 1.37	1.66 - 2.33	2.33 - 3.26
Precipitation (mm)	204.18	190.73	180.12	-25.89	-39.33	-49.94	-40.3017.70	-62.3026.90	-80.3033.90

<sup>\*</sup> Base Climate is 1990

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

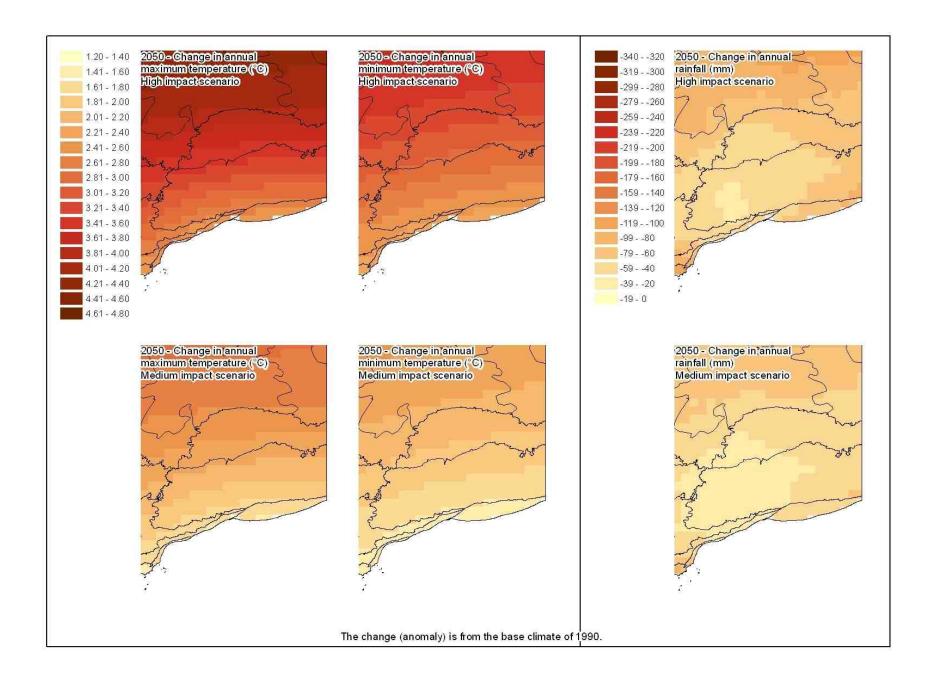
For more information see https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35

#### 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 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 <a href="here">here</a> (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				Currer	ntly remaining on DE	ls (ha)	Currently remaining on other lands (ha)			
Beard's veg assoc no.	veg assoc within sub- region (%)	Pre- European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN la-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
460	98.13	2,744,516	2,744,516	100.00	22,060	0	0	0	1,860,443	854,211	7,802
449	99.82	2,555,629	2,555,244	99.98	108,911	0	0	0	1,014,313	1,424,390	7,630
448	99.77	1,171,379	1,171,379	100.00	255,884	0	0	0	472,171	440,429	2,896
461	36.20	957,235	957,233	100.00	684	0	0	0	4,002	950,475	2,072

### 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. ≥ 85% of the vegetation association falls within one sub-region).

	Percentage of	Dro-	Pre- European extent (ha) Current extent (ha)		Currei	ntly remaining on DE	ls (ha)	Currently remaining on other lands (ha)			
Beard's veg assoc no.	veg assoc within sub- region (%)	_		Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
449	99.82	2,555,629	2,555,244	99.98	108,911	0	0	0	1,014,313	1,424,390	7,630
4641	99.81	153,836	153,836	100.00	0	0	0	0	9,273	144,563	0
448	99.77	1,171,379	1,171,379	100.00	255,884	0	0	0	472,171	440,429	2,896
460	98.13	2,744,516	2,744,516	100.00	22,060	0	0	0	1,860,443	854,211	7,802
214	96.72	488,902	488,902	100.00	0	0	0	0	113,584	372,699	2,620

#### 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.

	Percentage of	Pre-			Currer	ntly remaining on DE	C-managed land	ds (ha)	Currently re	maining on oth	er lands (ha)
Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN la-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
				(No vegetat	ion associatior	ns meet the rare crit	teria)	•		•	