2026 Quota report

NSW Commercial Kangaroo Management Program

**Department of Climate Change,
Energy, the Environment and Water**

NSW GOVERNMENT

Acknowledgement of Country

Department of Climate Change, Energy, the Environment and Water acknowledges the Traditional Custodians of the lands where we work and live.

We pay our respects to Elders past, present and emerging.

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1. Background

The NSW Department of Climate Change, Energy, the Environment and Water (the department) and its predecessor agencies have been researching and monitoring kangaroo populations in New South Wales and managing the NSW Commercial Kangaroo Management Program since the 1970s. During this time, in line with the best available science, adjustments have been made to the survey design and methods for estimating populations and calculating the commercial quota.

There are 15 commercial kangaroo management zones across New South Wales (Figure 1). The 15 zones are divided into 2 broad geographic areas that exclude the coastal region. Nine zones in the western parts of the state are grouped into the Western Plains region. The 6 eastern kangaroo management zones are grouped into the Tablelands, which is made up of 3 regions, the Northern (Glen Innes, Armidale and the Upper Hunter), Central (North and South) and South East Tablelands. Each year, aerial surveys are undertaken across the 9 kangaroo management zones in the Western Plains. Each Tablelands region is surveyed once every 3 years.

This report provides the 2025 population estimates for red kangaroos (*Osphranter rufus)*, eastern grey kangaroos (*Macropus giganteus*), western grey kangaroos (*Macropus fuliginosus)*, and the common wallaroo (*Osphranter robustus)*, and the corresponding commercial harvesting quotas for 2026 in accordance with the requirements of the *Wildlife Trade Management Plan for the Commercial Harvest of Kangaroos in New South Wales 2022–26* (DPE 2022).

Historical population and harvest data are provided in the Appendix.

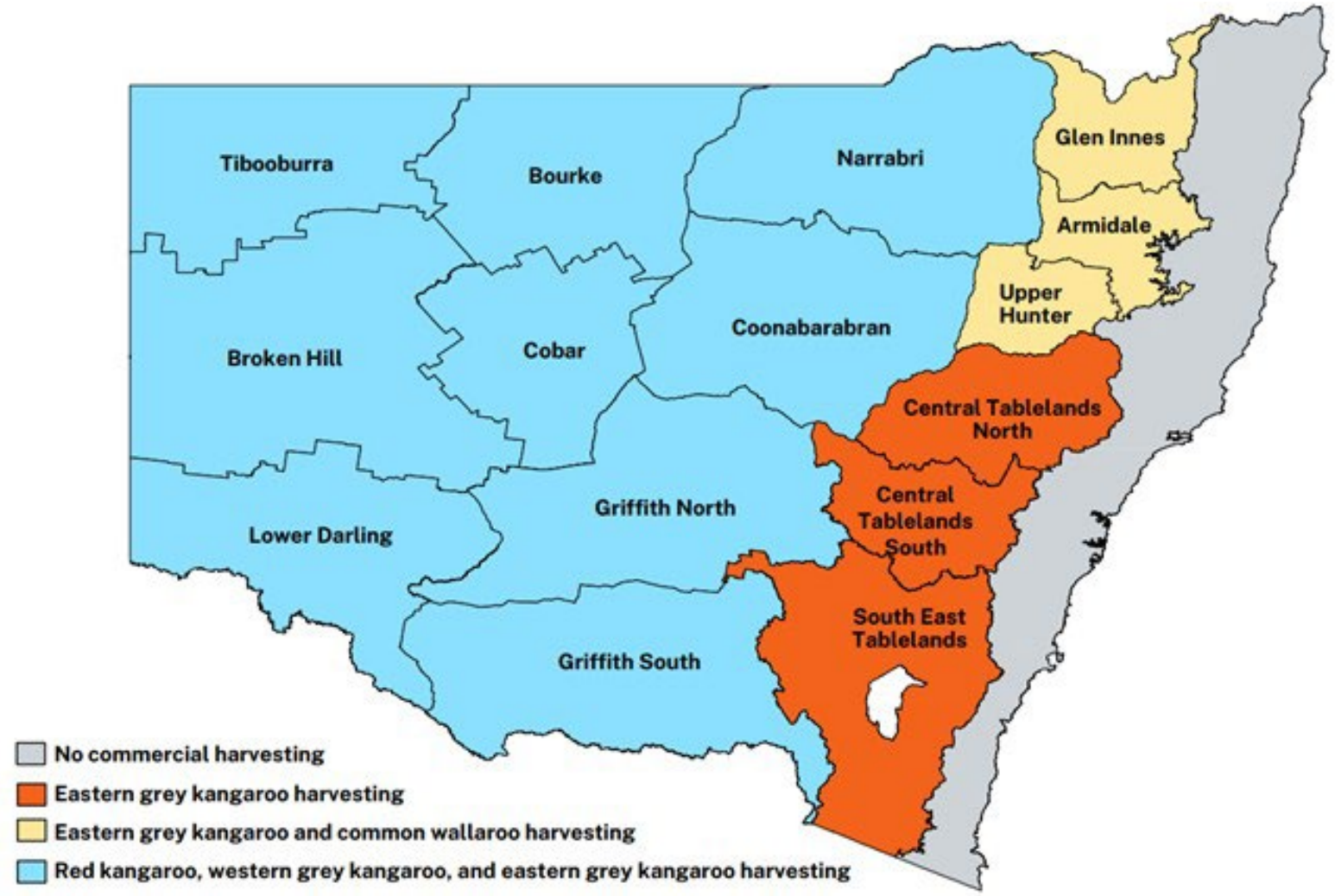

Figure 1 **Map showing the 15 commercial kangaroo management zones in New South Wales and which kangaroo and wallaroo species are harvested across different zones. The blue area represents the Western Plains region, which includes 9 zones. The yellow and orange areas represent the Tablelands region, which includes 6 zones**

2. 2026 harvest quota

The total quota available for commercial harvesting in 2026 is 1,453,025 kangaroos (Table 1). The maximum special quota that may be available in specific circumstances is 143,802 kangaroos (Table 1). Special quotas are explained in section 4.4 of this report.

Table 1 **Population estimates from 2025 aerial surveys, and 2023 and 2024 where relevant, of the 4 commercially-harvested kangaroo species across survey regions. Population estimates from 2025 surveys in the Northern Tablelands regions were used for the common wallaroo. Harvest quotas for 2026, quotas as a percentage of each kangaroo population and maximum special quotas for 2026. Previous quotas for 2025 are provided for comparison**

Kangaroo species	Survey region (survey year)	Population estimates 2025	2026 quota	Quota as percentage of population	Maximum special quota	Previous year 2025 quota
Red kangaroo	Western Plains (2025)	3,139,630	533,736	17%	47,095	852,938
Eastern grey kangaroo	Western Plains (2025)	1,529,088	194,074	11%	22,936	483,923
Eastern grey kangaroo	Northern (2025), Central (2023) and South East (2024) Tablelands	4,302,593	645,389	15%	64,539	641,985
Western grey kangaroo	Western Plains (2025)	410,607	54,318	9%	6,159	153,264
Common wallaroo	Northern Tablelands (2025)	204,891	25,508	8%	3,073	54,842
Total	**n/a**	**9,586,809**	**1,453,025**	**n/a**	**143,802**	**2,186,952**

Note: See section 4.4 of this report for more information about special quotas.

The 2026 quota for each species in each kangaroo management zone is provided in Table 2. In 2026, the harvesting of grey kangaroos is suspended in the Bourke and Broken Hill zones and reduced to 10% of the estimated populations in the Coonabarabran and Narrabri zones. The harvesting of wallaroos is suspended in the Armidale zone and reduced to 10% of the estimated population in the Upper Hunter zone. All other zones are open to harvesting with quotas set at the usual 17 % (for red kangaroos) or 15 % (for grey kangaroos and wallaroos) of the estimated populations.

Table 2 **Commercial harvest quotas for each kangaroo species in each commercial kangaroo management zone. No quota is provided for western grey kangaroos in the Narrabri zone because this species is not commercially harvested there. The shading indicates a zero or reduced quota**

Zone name	Red kangaroo quota	Western grey kangaroo quota	Eastern grey kangaroo quota	Common wallaroo quota	Total (all species)
Bourke	52,391	0	0	n/a	52,391
Broken Hill	189,141	0	0	n/a	189,141
Cobar	47,080	7,405	5,363	n/a	59,848
Coonabarabran	29,962	2,848	37,841	n/a	70,651
Griffith North	41,000	12,006	58,619	n/a	111,625
Griffith South	16,674	12,084	58,996	n/a	87,754
Lower Darling	59,446	19,283	8,663	n/a	87,392
Narrabri	49,484	n/a	21,822	n/a	71,306
Tibooburra	48,558	692	2,770	n/a	52,020
Glen Innes	n/a	n/a	72,729	23,182	95,911
Armidale	n/a	n/a	59,390	0	59,390
Upper Hunter	n/a	n/a	43,272	2,326	45,598
Central Tablelands North	n/a	n/a	130,018	n/a	130,018
Central Tablelands South	n/a	n/a	110,910	n/a	110,910
South East Tablelands	n/a	n/a	229,070	n/a	229,070
Total (all zones)	**533,736**	**54,318**	**839,463**	**25,508**	**1,453,025**

3. Survey methods and population estimates

3.1 How surveys are conducted

Aerial surveys are used to assess kangaroo populations. These are conducted annually on the Western Plains using fixed-wing aircraft surveys and triennially on the Tablelands with helicopter surveys. Surveys are designed to suit differences in terrain and the species being surveyed. The underlying principles of the survey method are:

- The aircraft or helicopter flies at a specified speed and height above the ground along a transect line.
- Trained aerial wildlife observers look through a frame or past a boom pole, which marks the distance animals are from the transect line.
- Animals seen from the aircraft within marked distances from a transect line are recorded by observers using a data logger.
- Collected data are analysed to calculate an estimated population density in the areas surveyed.
- The estimated population density, or number of animals per km^2, is multiplied by the area of the kangaroo management zone to calculate an estimate of population size.

3.2 Western Plains surveys

The 9 commercial kangaroo management zones in the Western Plains region cover an estimated 525,029 km^2 (Table 3). Surveys in fixed-wing aircraft allow these zones to be surveyed quickly.

Fixed-wing surveys were conducted across the Western Plains in July and August 2025. Mark–recapture distance sampling (MRDS) was used to estimate kangaroo densities across the 9 kangaroo management zones. This method of wildlife survey had 2 observers seated on the same side of the aircraft, independently counting animals along the same transect line. This increases the precision and accuracy of the count methodology and analysis.

The 2025 densities and estimated populations of red kangaroos and grey kangaroos (including eastern and western grey kangaroos) in each zone are reported in Tables 3 and 4 and were used to set the 2026 quotas.

Table 3 **2025 red kangaroo density and population estimates for the Western Plains commercial kangaroo management zones**

Zone name	Zone area (km²)	Density (per km²)	Population size estimate
Bourke	51,236	6.0	308,185
Broken Hill	86,489	12.9	1,112,594
Cobar	37,932	7.3	276,942
Coonabarabran	58,554	3.0	176,248
Griffith North	63,318	3.8	241,178
Griffith South	60,995	1.6	98,080
Lower Darling	53,338	6.6	349,684
Narrabri	63,431	4.6	291,085
Tibooburra	49,736	5.7	285,634
Total	**525,029**	**n/a**	**3,139,630**

Note: 'Zone area' excludes the NSW national park estate, state forests and conservation reserves where harvesting is prohibited and aerial surveys are not undertaken. n/a = not applicable – the zone density values are not summed to give a total density for the total zone area

Table 4 **2025 grey kangaroo density and population estimates for the Western Plains commercial kangaroo management zones. These estimates combine eastern grey and western grey kangaroos**

Zone name	Zone area (km²)	Density (per km²)	Population size estimate
Bourke	51,236	0.6	28,282
Broken Hill	86,489	0.5	44,888
Cobar	37,932	2.2	85,119
Coonabarabran	58,554	6.9	406,892
Griffith North	63,318	7.4	470,833
Griffith South	60,995	7.8	473,870
Lower Darling	53,338	3.5	186,310
Narrabri	63,431	3.5	220,423
Tibooburra	49,736	0.5	23,078
Total	**525,029**	**n/a**	**1,939,695**

Note: 'Zone area' excludes the NSW national park estate, state forests and conservation reserves where harvesting is prohibited and aerial surveys are not undertaken. n/a = not applicable – the zone density values are not summed to give a total density for the total zone area.

Results from previous surveys of the Western Plains kangaroo management zones are provided in the Appendix.

3.3 Tablelands surveys

The 6 commercial kangaroo management zones in the NSW Tablelands cover 132,724 km^2 (Appendix). Each zone is surveyed once every 3 years using line transect sampling by helicopter. The Northern Tablelands was surveyed in 2025. The South East and Central tablelands were most recently surveyed in 2024 and 2023, respectively.

3.3.1 Northern Tablelands 2025 survey

The 3 Northern Tablelands kangaroo management zones were surveyed by helicopter in September 2025. In addition to eastern grey kangaroo, the common wallaroo is also commercially harvested in these zones, and was included in the survey. The kangaroo (eastern grey) and wallaroo (common wallaroo) density and population estimates derived from that survey are provided in Tables 5 and 6 and were used to set the 2026 quotas.

Table 5 **2025 eastern grey kangaroo density and population size estimates for the Northern Tablelands commercial kangaroo management zones**

Zone name	Zone area (km^2)	Density (per km^2)	Population estimate
Glen Innes	18,449	26.3	484,858
Armidale	15,809	25.0	395,936
Upper Hunter	14,004	20.6	288,482
Total	**48,262**	**n/a**	**1,169,276**

Note: 'Zone area' in this table excludes national parks estate, state forests and conservation reserves, where harvesting is prohibited and aerial surveys are not undertaken.

Table 6 **2025 common wallaroo density and population size estimates for the Northern Tablelands commercial kangaroo management zones**

Zone name	Zone area (km^2)	Density (per km^2)	Population estimate
Glen Innes	18,449	4.5	154,544
Armidale	15,809	0.9	27,082
Upper Hunter	14,004	0.9	23,265
Total	**48,262**	**n/a**	**204,891**

Note: 'Zone area' excludes national parks estate, state forests and conservation reserves, where harvesting is prohibited and aerial surveys are not undertaken.

Historical population estimates and quotas for the Northern Tablelands kangaroo management zones are provided in Appendix Tables 33 to 38.

3.3.2 South East Tablelands 2024 survey

The South East Tablelands commercial kangaroo management zone was last surveyed in September 2024 (Cairns 2025).

The kangaroo density and population estimates derived from that survey are reported in Table 7 and were used to set the 2026 quotas.

Historical population estimates and quotas for the South East Tablelands kangaroo management zone are provided at Appendix Table 39.

Table 7 2024 eastern grey kangaroo density and population estimates within the South East Tablelands commercial kangaroo management zone

Zone name	Zone area (km^2)	Density (per km^2)	Population estimate
South East Tablelands	40,707	37.5	1,527,130

3.3.3 Central Tablelands 2023 survey

The 2 commercial kangaroo management zones in the Central Tablelands were surveyed in September 2023 (Cairns 2024). The kangaroo densities and population estimates derived from that survey are reported in Table 8 and were used to set the 2026 quotas. Historical population estimates and quotas for the Central Tablelands commercial kangaroo management zones are provided in Appendix Tables 40 and 41.

Table 8 2023 eastern grey kangaroo density and population estimates for the Central Tablelands commercial kangaroo management zones

Zone name	Zone area (km^2)	Density (per km^2)	Population estimate
Central Tablelands North	24,396	35.5	866,790
Central Tablelands South	19,361	38.2	739,397
Total	**43,757**	**n/a**	**1,606,187**

Note: 'Zone area' excludes the national park estate, state forests and conservation reserves, where harvesting is prohibited and aerial surveys are not undertaken. n/a = not applicable – the zone density values are not summed to give a total density for the total zone area.

4. Setting the quota

4.1 Commercial harvest quotas

The number of kangaroos that can be commercially harvested is set each year and is referred to as the annual quota. The annual quota is set at a proportion of the kangaroo population estimates calculated from the most recent survey.

The quota is set for each of the 4 large kangaroo species that are subject to harvest in each of 15 kangaroo management zones. For red kangaroos, quotas are usually set at 17% of the estimated population and for eastern grey kangaroos, western grey kangaroos and wallaroos, the quota is usually set at 15% of the estimated population. The quota sets a limit on the number of kangaroos that can be harmed for commercial purposes in any given kangaroo management zone.

The commercial harvest of kangaroos is prohibited within national parks and other reserved areas. It can only be undertaken on private landholdings with the written permission of the landholder (owner or occupier/manager).

4.2 Low population quota thresholds

Low-density kangaroo populations are protected from significant localised decline through the use of thresholds.

Thresholds are based on standard deviations, which are standardised measures that indicate how much a population varies from the long-term average population. A small standard deviation indicates the population does not vary by much compared to the long-term average, whereas a large standard deviation indicates the population varies more.

New threshold values are calculated for each species in each zone each year. The thresholds are based on population densities of kangaroos, which is calculated as the number of kangaroos per km^2 at the time of the aerial survey. There are 2 thresholds that represent significant population declines:

- Threshold 1 is set at 1.5 standard deviations below the long-term average density.
- Threshold 2 is set at 2.0 standard deviations below the long-term average density.

If a population falls to below Threshold 1, but not as low as Threshold 2, the commercial harvest quota for the following year is reduced to 10% of the population rather than the usual 15% for grey kangaroos and wallaroos or 17% for red kangaroos. If a population falls below Threshold 2, no commercial harvest quota is set for the following year.

4.3 2025 kangaroo population density thresholds

The kangaroo population densities determined from the most recent surveys of the Western Plains and Northern Tablelands regions are lower for some species in some zones than the population density thresholds that trigger reduced quota settings. As a result, there are quota reductions or suspensions for those species in those zones for

2026 (Tables 9 and 12). There are no quota reductions or suspensions for red kangaroos in any zone in 2026 (Table 10).

No quota is ever set for western grey kangaroos in the Narrabri zone, as it is on the eastern edge of the species' range and the population is usually small.

4.3.1 Thresholds for Western Plains zones

Population density thresholds for each of the Western Plains commercial kangaroo management zones are reported for both eastern and western grey kangaroos in Table 9 and red kangaroos in Table 10.

Table 9 **2025 grey kangaroo density estimates compared to long-term average kangaroo densities in the Western Plains. The harvesting of grey kangaroos is suspended in the Bourke and Broken Hill kangaroo management zones and reduced to 10% of the populations in the Coonabarabran and Narrabri kangaroo management zones.**

Thresholds	Bourke	Broken Hill	Cobar	Coonabarabran	Griffith North	Griffith South	Lower Darling	Narrabri	Tibooburra
Long-term average density	4.5	4.1	6.4	17.6	9.5	8.3	6.3	11.0	1.5
Threshold 1: 10% quota	1.0	1.5	1.3	8.2	4.7	5.4	2.8	4.6	0.4
Threshold 2: suspension of quota	0.6	1.1	0.8	6.4	3.7	4.7	2.2	3.4	0.3
2025 density estimate (kangaroos/km^2)	0.6	0.5	2.2	6.9	7.4	7.8	3.5	3.5	0.5

Notes: Blue shading highlights zones where a quota suspension or reduction has been applied. Thresholds 1 and 2 are explained in section 4.2 of this report.

Table 10 **2025 red kangaroo density estimates compared to long-term average kangaroo densities in the Western Plains. There are no quota reductions or suspensions for the harvesting of red kangaroos in any of the Western Plains kangaroo management zones.**

Thresholds	Bourke	Broken Hill	Cobar	Coonabarabran	Griffith North	Griffith South	Lower Darling	Narrabri	Tibooburra
Long-term average density	5.3	12.7	4.2	3.9	2.6	3.1	5.7	4.7	12.8
Threshold 1: 10% quota	2.6	8.0	2.0	1.9	0.9	1.3	2.8	1.9	5.0
Threshold 2: suspension of quota	2.0	6.9	1.6	1.5	0.6	0.9	2.2	1.4	3.6
2025 density estimate (kangaroos/km^2)	6.0	12.9	7.3	3.0	3.8	1.6	6.6	4.6	5.7

Notes: Thresholds 1 and 2 are explained in section 4.2 of this report.

4.3.2 Thresholds for Tablelands zones

Population density thresholds for each of the Tablelands commercial kangaroo management zones are shown in Table 11 for eastern grey kangaroos and Table 12 for common wallaroos.

Table 11 **Eastern grey kangaroo density estimates from the most recent respective surveys, compared to the long-term averages, for each of the Tablelands kangaroo management zones. Thresholds were updated to include the updated 2025 survey data. There are no quota reductions or suspensions for the harvesting of eastern grey kangaroos in any of the Tablelands kangaroo management zones**

Thresholds	Armidale	Glen Innes	Upper Hunter	Central Tablelands North	Central Tablelands South	South East Tablelands
Long-term average density	15.6	15.1	11.4	34.7	31.5	21.4
Threshold 1: 10% quota	8.2	7.1	5.1	16.7	18.1	8.0
Threshold 2: suspension of quota	6.6	5.5	3.9	13.1	15.0	5.8
2025 density estimate (kangaroos/km^2)	25.0	26.3	20.6	35.5	38.2	37.5
Last survey year	2025	2025	2025	2023	2023	2024

Note: Thresholds 1 and 2 are explained in section 4.2 of this report.

Table 12 **Wallaroo density estimates from the 2025 survey compared to the long-term averages for each of the Northern Tablelands kangaroo management zones. Thresholds were updated to include the updated 2025 survey data. Harvesting of wallaroos is suspended in the Armidale zone and reduced to 10% of the surveyed population in the Upper Hunter zone**

Thresholds	Armidale	Glen Innes	Upper Hunter
Long-term average density	4.81	4.30	4.19
Threshold 1: 10% quota	1.64	1.70	1.22
Threshold 2: suspension of quota	1.14	1.25	0.80
2025 density estimate (wallaroos/km^2)	0.9	4.5	0.9
Last survey year	2025	2025	2025

Note: Blue shading highlights zones where a quota suspension or reduction has been applied. Thresholds 1 and 2 are explained in section 4.2 of this report.

4.4 Special quotas

In years when kangaroo populations are high, the department may consider releasing an additional special quota where the annual commercial harvest quota for a species in a commercial kangaroo management zone has been fully issued. This is not an automatic decision. The special quota aims to minimise the number of kangaroos shot under non-commercial licences by allowing increased commercial use of kangaroos that would otherwise be shot and left in the field. In deciding whether to release a special quota, the department will consult the Kangaroo Management Advisory Panel and consider local conditions, climatic trends, population trends and Western Lands de-stocking orders to ensure populations remain viable with increased harvesting.

A special quota for 2026 has been calculated in accordance with the *Wildlife Trade Management Plan for the Commercial Harvest of Kangaroos in New South Wales 2022–26* (DPE 2022; Table 1). When used, special quotas will be set at a maximum of 5% of the population estimate of each kangaroo species in any one zone, and a maximum of 1.5% of the population of each species across all zones.

Special quotas will not be allocated where the commercial harvest is reduced or suspended due to low populations.

4.5 New commercial harvest zones

No new zones have been added to the 2026 harvest area.

4.6 Non-commercial culling

Non-commercial culling is available to landholders throughout New South Wales to help manage the impact of kangaroos on their land. Maximum culling limits are set annually, based on the same population survey data that is used for the setting of commercial kangaroo harvest quotas. Maximum culling limits are set according to property size for the 4 species subject to commercial kangaroo harvesting – eastern grey, western grey and red kangaroos and the common wallaroo. For all other kangaroo species, and where the property size is less than 20 hectares, culling limits are determined on a case-by-case basis.

Non-commercial culling limits can be found on the department's *Licences to harm kangaroos* webpage (DCCEEW 2024). Licences to harm and the non-commercial culling of kangaroos is managed by the NSW National Parks and Wildlife Service.

5. References

Cairns, SC, Chapple, S, and Lollback G. (2025) *Design and analysis of helicopter surveys of kangaroo populations in the South East NSW kangaroo management zone 2024*, accessed 11 December 2025.

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DPE (Department of Planning and Environment) (2023) 2024 Quota Report: NSW commercial kangaroo management program, accessed 17 December 2024.

DPE (Department of Planning and Environment) (2022) Wildlife Trade Management Plan for the Commercial Harvest of Kangaroos in New South Wales 2022–26, accessed 17 December 2024.

6. Appendix

These tables present changes in kangaroo population sizes and densities over time. The percentage change in population size is calculated each year for the Western Plains region and every 3 years for the Tablelands region.

Section 3 in this report describes survey methods and population estimates in more detail.

6.1 Notes for tables

For tables that contain data for the Western Plains zones (Tables 13–32):

- Population estimates and quotas are provided for each survey year from 2001. Data from previous years, dating back to 1993, are provided in the 2024 Quota Report (DPE 2023).
- From September 2001, 100 m correction factors were used.
- In 2016 and 2017, the long east–west transects used in previous years were flown, but data collection and analysis changed to mark–recapture distance sampling.
- In 2018, the sampling design changed to zigzag transects within randomly placed 50 x 20 km blocks and mark–recapture distance sampling was used for data collection and analysis.
- In 2024, in response to recommendations of the CREEM review, the transects were shortened in length but increased in number to improve the probability of obtaining a more representative habitat coverage.
- In 2025, fewer observers were used during the Western Plains survey while maintaining the MRDS method of survey and analysis.

6.2 Kangaroo management zone number 1: Tibooburra

Table 13 Red kangaroo temporal variation – Tibooburra

Year	Population	Density	% change	Quota	% population
2001	1,389,398	25.3	49.7	106,200	11.4
2002	754,013	13.7	–45.7	229,200	16.5
2003	420,721	7.7	–44.2	124,700	16.5
2004	487,004	8.9	15.8	71,523	17.0
2005	629,502	11.5	29.3	82,791	17.0
2006	361,586	6.6	–42.6	107,015	17.0
2007	432,096	7.9	19.5	61,470	17.0
2008	606,518	11.1	40.4	73,456	17.0
2009	560,706	10.2	–7.6	103,108	17.0
2010	636,038	11.6	13.4	95,320	17.0
2011	621,124	11.3	–2.3	108,126	17.0
2012	937,643	17.1	51.0	105,591	17.0
2013	903,279	*16.5	–3.7	159,399	17.0
2014	1,256,418	22.9	39.1	153,557	17.0
2015	1,061,784	19.4	–15.5	213,591	17.0
2016	1,567,598	*28.6	47.6	180,503	17.0
2017	1,135,531	20.6	–27.6	266,492	17.0
2018	344,619	6.3	–69.7	193,040	17.0
2019	79,346	1.4	–77.0	0	0
2020	200,465	3.7	153.00	0	0
2021	336,735	6.1	68.0	20,046	10.0
2022	344,350	6.3	2.4	57,245	17.0
2023	374,773	7.5	8.8	58,540	17.0
2024	577,642	11.6	54.1	63,711	17.0
2025	285,634	5.7	-50.6	98,199	17.0
2026	n/a	n/a	n/a	48,558	17.0

Notes: * = corrections from previous reports that make no material difference to any of the quotas or % population figures; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 14 Grey kangaroo temporal variation – Tibooburra

Year	Population	Density	% change	Quota	% population
2001	242,312	4.4	15.8	18,100	8.7
2002	184,093	3.4	–24.0	41,700	17.2
2003	73,098	1.3	–60.3	31,000	16.8
2004	72,890	1.3	–0.3	10,965	15.0
2005	52,605	1.0	–27.8	10,933	15.0
2006	59,034	1.1	12.2	7,891	15.0
2007	64,222	1.2	8.8	8,855	15.0
2008	93,058	1.7	44.9	9,633	15.0
2009	92,905	1.7	–0.2	13,959	15.0
2010	37,781	0.7	–59.3	951	1.0
2011	51,214	0.9	35.6	0	0
2012	73,882	1.4	44.3	7,153	14.0
2013	163,392	3.0	121.2	11,082	15.0
2014	44,669	0.8	–72.7	24,509	15.0
2015	234,927	4.3	426	4,467	10.0
2016	451,594	*8.2	92.2	35,239	15.0
2017	176,058	3.2	–61.0	67,739	15.0
2018	184,002	3.3	4.5	26,409	15.0
2019	48,502	0.9	–73.6	27,600	15.0
2020	6,859	0.1	–86	6,782	14.0
2021	30,600	0.6	346.1	0	0
2022	16,510	0.3	–46.0	4,590	15.0
2023	171,055	3.4	936	1,651	10.0
2024	32,323	0.6	–81.1	25,659	15.0
2025	23,078	0.5	-28.6	4,849	15.0
2026	n/a	n/a	n/a	3,462	15.0

Notes: * = corrections from previous reports that make no material difference to any of the quotas or % population figures; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.3 Kangaroo management zone number 2: Broken Hill

Table 15 Red kangaroo temporal variation – Broken Hill

Year	Population	Density	% change	Quota	% population
2001	1,487,845	16.4	55.1	143,000	14.9
2002	1,121,294	12.3	–24.6	220,200	14.8
2003	584,448	6.4	–47.9	166,950	14.9
2004	925,845	10.2	58.4	99,356	17.0
2005	538,956	5.9	–41.8	157,394	17.0
2006	725,035	8.0	34.5	91,622	17.0
2007	1,092,982	12.0	50.7	123,256	17.0
2008	1,190,299	13.1	8.9	185,807	17.0
2009	809,665	8.9	–32.0	202,351	17.0
2010	855,368	9.4	5.6	137,643	17.0
2011	1,079,052	11.9	26.2	145,413	17.0
2012	1,138,627	12.5	5.5	183,439	17.0
2013	1,219,455	13.4	7.1	193,567	17.0
2014	2,192,347	24.1	79.8	207,307	17.0
2015	2,168,733	23.9	–1.1	372,699	17.0
2016	1,206,597	*13.3	–44.4	368,685	17.0
2017	823,210	9.0	–31.8	205,121	17.0
2018	1,133,523	12.4	37.7	139,946	17.0
2019	1,124,115	12.3	–0.8	192,699	17.0
2020	1,197,474	13.2	6.5	191,100	17.0
2021	1,281,119	14.2	7.0	203,571	17.0
2022	1,746,169	19.2	36.3	217,788	17.0
2023	741,462	8.6	–57.5	296,849	17.0
2024	1,454,248	16.8	96.1	126,048	17.0
2025	1,112,594	12.9	-23.5	247,222	17.0
2026	n/a	n/a	n/a	189,141	17.0

Notes: * = corrections from previous reports that make no material difference to any quotas or % population figures; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 16 Grey kangaroo temporal variation – Broken Hill

Year	Population	Density	% change	Quota	% population
2001	723,937	8.0	–0.9	71,600	9.8
2002	982,041	10.8	35.7	101,000	14.0
2003	263,796	2.9	–73.1	138,000	14.1
2004	251,867	2.8	–4.5	39,569	15.0
2005	174,358	1.9	–30.8	37,780	15.0
2006	216,474	2.4	24.2	26,154	15.0
2007	281,904	3.1	30.2	32,471	15.0
2008	439,369	4.8	55.9	42,286	15.0
2009	366,677	4.0	–16.5	65,905	15.0
2010	241,831	2.7	–34.0	55,002	15.0
2011	179,320	2.0	–25.8	36,275	15.0
2012	221,803	2.4	23.7	21,382	11.9
2013	586,534	6.5	164.4	26,702	12.0
2014	444,547	4.9	–24.2	87,980	15.0
2015	564,083	6.2	26.9	66,682	15.0
2016	672,187	7.4	19.2	84,612	15.0
2017	438,131	4.8	–34.8	100,828	15.0
2018	395,360	4.3	–9.8	65,720	15.0
2019	326,644	3.6	–17.4	59,304	15.0
2020	281,410	3.1	–14.0	48,977	15.0
2021	184,257	2.0	–34.5	42,212	15.0
2022	211,832	2.3	15.0	27,638	15.0
2023	157,675	1.8	–25.6	31,775	15.0
2024	256,294	3.0	62.5	23,652	15.0
2025	44,888	0.5	-82.5	38,445	15.0
2026	n/a	n/a	n/a	0	0.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.4 Kangaroo management zone number 4: Lower Darling

Table 17 Red kangaroo temporal variation – Lower Darling

Year	Population	Density	% change	Quota	% population
2001	279,185	4.9	26.1	36,820	16.6
2002	468,072	8.3	67.7	40,900	14.6
2003	197,864	3.5	–57.7	69,200	14.8
2004	166,340	2.9	–15.9	33,637	17.0
2005	124,665	2.2	–25.1	28,278	17.0
2006	113,119	2.0	–9.3	21,193	17.0
2007	188,018	3.3	66.2	19,230	17.0
2008	251,731	4.5	33.9	31,963	17.0
2009	185,450	3.3	–26.3	42,794	17.0
2010	193,931	3.4	4.6	31,527	17.0
2011	186,473	3.3	–3.8	32,968	17.0
2012	295,180	5.2	58.3	31,700	17.0
2013	423,518	7.5	43.5	50,181	17.0
2014	289,106	5.1	–31.7	71,998	17.0
2015	387,272	6.9	34.0	49,148	17.0
2016	619,113	11.0	59.9	65,836	17.0
2017	289,385	5.1	–53.3	105,249	17.0
2018	307,619	5.4	6.3	49,195	17.0
2019	691,119	12.2	124.7	52,295	17.0
2020	583,802	10.3	–15.5	117,490	17.0
2021	750,367	13.3	28.5	99,246	17.0
2022	667,099	11.8	–11.1	127,562	17.0
2023	425,054	8.0	–36.3	113,407	17.0
2024	668,560	12.5	57.3	72,259	17.0
2025	349,684	6.6	-47.7	113,655	17.0
2026	n/a	n/a	n/a	59,446	17.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set% change = % change in population size.

Table 18 Grey kangaroo temporal variation – Lower Darling

Year	Population	Density	% change	Quota	% population
2001	454,782	8.1	25.4	44,600	12.3
2002	512,465	9.1	12.7	69,300	15.2
2003	336,387	6.0	–34.4	78,300	15.3
2004	306,466	5.4	–8.9	50,458	15.0
2005	110,876	2.0	–63.8	45,970	15.0
2006	220,666	3.9	99	16,631	15.0
2007	226,569	4.0	2.7	33,100	15.0
2008	367,220	6.5	62.1	33,985	15.0
2009	215,420	3.8	–41.3	55,083	15.0
2010	231,585	4.1	7.5	32,313	15.0
2011	98,973	1.8	–57.3	34,738	15.0
2012	232,187	4.1	134.6	3,259	3.3
2013	486,859	8.6	109.7	34,828	15.0
2014	397,584	7.0	–18.3	73,029	15.0
2015	360,959	6.4	–9.2	59,638	15.0
2016	566,970	*10.0	57.1	54,144	15.0
2017	212,474	3.7	–62.5	85,046	15.0
2018	281,035	5.0	32.3	31,871	15.0
2019	378,718	6.7	34.8	42,155	15.0
2020	314,639	5.6	–17.0	56,808	15.0
2021	281,919	5.0	–10.4	47,196	15.0
2022	340,884	6.0	20.9	42,288	15.0
2023	209,777	3.9	–38.5	51,133	15.0
2024	533,133	10.0	154.1	31,467	15.0
2025	186,310	3.5	-65.1	79,970	15.0
2026	n/a	n/a	n/a	27,946	15.0

Notes: * = corrections from previous reports that make no material difference to any of the quotas or % population figures; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.5 Kangaroo management zone number 6: Cobar

Table 19 Red kangaroo temporal variation – Cobar

Year	Population	Density	% change	Quota	% population
2001	196,029	4.9	–15.3	29,700	12.8
2002	258,662	6.4	32	29,200	14.9
2003	121,756	3.0	–52.9	38,600	14.9
2004	146,292	3.6	20.2	20,699	17.0
2005	117,137	2.9	–19.9	24,870	17.0
2006	107,825	2.7	–7.9	19,913	17.0
2007	85,913	2.1	–20.3	18,330	17.0
2008	156,639	3.9	82.3	14,605	17.0
2009	97,823	2.4	–37.5	26,629	17.0
2010	148,177	3.7	51.5	16,630	17.0
2011	210,921	5.2	42.3	25,190	17.0
2012	252,750	6.3	19.8	35,857	17.0
2013	193,738	4.8	–23.3	42,968	17.0
2014	298,459	7.4	54.1	32,935	17.0
2015	357,287	8.9	19.7	50,738	17.0
2016	437,129	10.8	22.3	60,739	17.0
2017	229,495	5.7	–47.5	74,312	17.0
2018	44,733	1.1	–80.5	39,014	17.0
2019	36,058	0.9	–19.4	0	0
2020	102,480	2.5	184.2	0	0
2021	180,501	4.5	76.1	17,422	17.0
2022	183,195	4.5	1.5	30,685	17.0
2023	106,443	2.8	–41.9	31,143.00	17.0
2024	233,301	6.2	119.2	18,095	17.0
2025	276,942	7.3	18.7	39,661	17.0
2026	n/a	n/a	n/a	47,080	17.0

Note: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 20 Grey kangaroo temporal variation – Cobar

Year	Population	Density	% change	Quota	% population
2001	1,052,432	26.1	39.3	67,700	9.0
2002	938,507	23.3	–10.8	131,500	12.5
2003	551,434	13.7	–41.2	114,900	12.2
2004	303,491	7.5	–45.0	82,715	15.0
2005	279,121	6.9	–8.0	45,524	15.0
2006	208,066	5.2	–25.5	41,868	15.0
2007	282,841	7.0	35.9	31,210	15.0
2008	350,925	8.7	24.1	42,426	15.0
2009	251,233	6.2	–28.4	52,639	15.0
2010	256,097	6.4	1.9	37,685	15.0
2011	176,060	4.4	–31.3	38,415	15.0
2012	311,522	7.7	76.9	21,384	12.1
2013	660,596	16.4	112.1	46,728	15.0
2014	546,338	13.5	–17.3	99,089	15.0
2015	492,207	12.2	–9.9	81,951	15.0
2016	405,079	10.0	–17.7	73,831	15.0
2017	184,069	4.5	–54.6	60,762	15.0
2018	81,391	2.0	–55.8	22,239	12.1
2019	7,317	0.2	–91.0	0	0
2020	44,208	1.1	504.0	0	0
2021	68,223	1.7	54.3	4,421	10.0
2022	40,278	1.0	–41.0	10,233	15.0
2023	32,321	0.9	–19.8	6,042	15.0
2024	160,193	4.22	395.6	4,848	15.0
2025	85,119	2.2	-46.9	24,029	15.0
2026	n/a	n/a	n/a	12,768	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.6 Kangaroo management zone number 7: Bourke

Table 21 Red kangaroo temporal variation – Bourke

Year	Population	Density	% change	Quota	% population
2001	487,321	8.9	11.2	59,200	13.5
2002	756,705	13.8	55.3	72,900	15.0
2003	191,581	3.5	–74.7	114,450	15.1
2004	203,764	3.7	6.4	32,569	17.0
2005	220,567	4.0	8.2	34,640	17.0
2006	258,668	4.7	17.3	37,496	17.0
2007	143,043	2.6	–44.7	43,973	17.0
2008	140,371	2.6	–1.9	24,317	17.0
2009	180,413	3.3	28.5	23,863	17.0
2010	251,196	4.6	39.2	30,670	17.0
2011	444,932	8.1	77.1	42,703	17.0
2012	429,000	7.8	–3.6	75,638	17.0
2013	460,225	8.4	7.3	72,930	17.0
2014	439,559	*8.0	–4.5	78,238	17.0
2015	504,671	9.2	14.8	74,725	17.0
2016	730,140	13.3	44.7	85,794	17.0
2017	461,968	8.4	–36.7	124,124	17.0
2018	244,687	4.5	–47.0	78,535	17.0
2019	497,085	9.0	103.2	41,597	17.0
2020	117,975	2.1	–76.0	84,504	17.0
2021	164,351	3.0	39.3	11,797	10.0
2022	214,369	3.9	30.4	27,940	17.0
2023	247,591	4.8	15.5	36,443	17.0
2024	528,688	10.3	113.5	42,091	17.0
2025	308,185	6.0	-41.7	89,877	17.0
2026	n/a	n/a	n/a	52,391	17.0

Notes: * = corrections from previous reports that make no material difference to any of the quotas or % population figures; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 22 Grey kangaroo temporal variation – Bourke

Year	Population	Density	% change	Quota	% population
2001	1,220,882	22.2	47.3	88,300	10.7
2002	1,013,389	18.4	–17.0	152,200	12.5
2003	298,422	5.4	–70.6	126,700	12.5
2004	268,883	4.9	–9.9	44,763	15.0
2005	181,025	3.3	–32.7	40,332	15.0
2006	110,115	2.0	–39.2	27,154	15.0
2007	183,442	3.3	66.6	16,517	15.0
2008	152,776	2.8	–16.7	27,516	15.0
2009	147,001	2.7	–3.8	22,916	15.0
2010	140,721	2.6	–4.3	14,194	9.7
2011	128,018	2.3	–9.0	16,508	11.7
2012	446,909	8.1	249.1	12,802	10.0
2013	541,622	9.9	21.2	67,036	15.0
2014	471,812	8.6	–12.9	81,243	15.0
2015	474,326	8.6	0.5	70,772	15.0
2016	473,265	*8.6	–0.2	71,149	15.0
2017	221,401	4.0	–53.2	70,990	15.0
2018	183,950	3.3	–16.9	33,210	15.0
2019	51,734	0.9	–71.9	27,592	15.0
2020	41,501	0.8	–20.0	0	0
2021	36,462	0.7	–12.1	4,150	10.0
2022	30,385	0.6	–16.7	3,646	10.0
2023	48,158	0.9	58.5	3,038	10.0
2024	113,375	2.2	135.4	7,224	15.0
2025	28,282	0.6	-75.1	17,006	15.0
2026	n/a	n/a	n/a	0	0

Notes: * = corrections from previous reports that make no material difference to any of the quotas or % population figures; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.7 Kangaroo management zone number 8: Narrabri

Table 23 Red kangaroo temporal variation – Narrabri

Year	Population	Density	% change	Quota	% population
2001	532,460	8.1	–42.4	98,400	10.6
2002	692,966	10.5	30.1	79,800	15.0
2003	224,010	3.4	–67.7	103,950	15.0
2004	167,484	2.5	–25.2	38,082	17.0
2005	198,190	3.0	18.3	28,472	17.0
2006	233,780	3.6	18.0	33,692	17.0
2007	121,426	1.8	–48.1	39,743	17.0
2008	124,915	1.9	2.9	20,642	17.0
2009	189,118	2.9	51.4	21,236	17.0
2010	433,366	6.6	129.2	32,150	17.0
2011	530,367	8.1	22.4	73,672	17.0
2012	371,257	5.6	–30.0	90,162	17.0
2013	369,861	5.6	–0.4	63,114	17.0
2014	406,847	6.2	10.0	62,876	17.0
2015	315,429	4.8	–22.5	69,164	17.0
2016	780,834	11.9	147.5	53,623	17.0
2017	785,211	11.9	0.6	132,742	17.0
2018	353,348	5.4	–55.0	133,486	17.0
2019	346,451	5.3	–2.0	60,069	17.0
2020	190,458	2.9	–45.0	58,897	17.0
2021	310,030	4.7	62.8	32,380	17.0
2022	345,322	5.3	11.4	52,705	17.0
2023	423,642	6.7	22.7	58,705	17.0
2024	588,471	9.3	38.9	72,019	17.0
2025	291,085	4.6	-50.5	100,040	17.0
2026	n/a	n/a	n/a	49,484	17.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 24 Grey kangaroo temporal variation – Narrabri

Year	Population	Density	% change	Quota	% population
2001	1,523,954	23.2	2.2	182,500	12.2
2002	1,927,959	29.3	26.5	191,200	12.5
2003	874,080	13.3	–54.7	247,300	12.8
2004	367,179	5.6	–58.0	131,112	15.0
2005	399,672	6.1	8.8	55,077	15.0
2006	398,589	6.1	–0.3	59,853	15.0
2007	697,531	10.6	75.0	59,788	15.0
2008	513,617	7.8	–26.4	104,630	15.0
2009	447,330	6.8	–12.9	77,043	15.0
2010	752,771	11.4	68.3	67,002	15.0
2011	1,229,345	18.7	63.3	112,851	15.0
2012	1,246,675	19.0	1.4	184,304	15.0
2013	1,874,886	28.5	50.4	186,514	15.0
2014	1,321,410	20.1	–29.5	280,485	15.0
2015	813,425	12.4	–38.4	197,692	15.0
2016	1,434,755	21.8	76.4	121,072	14.9
2017	445,768	6.8	–68.9	215,213	15.0
2018	728,648	11.1	63.5	66,378	14.9
2019	765,632	11.5	5.1	108,413	14.9
2020	745,775	11.3	–3.0	114,009	14.9
2021	311,846	4.7	–58.2	110,748	14.9
2022	289,798	4.4	–7.1	30,873	9.9
2023	250,851	4.0	–13.4	28,980	10.0
2024	458,109	7.2	82.6	24,834	9.9
2025	220,423	3.5	-52.4	68,716	15.0
2026	n/a	n/a	n/a	21,822	9.9

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.8 Kangaroo management zone number 10: Coonabarabran

Table 25 **Red kangaroo temporal variation – Coonabarabran**

Year	Population	Density	% change	Quota	% population
2001	301,341	4.9	2.0	42,320	14.3
2002	345,431	5.6	14.6	45,100	15.0
2003	204,649	3.3	–40.8	51,300	14.9
2004	199,348	3.2	–2.6	34,790	17.0
2005	135,328	2.2	–32.1	33,889	17.0
2006	161,119	2.6	19.1	23,006	17.0
2007	168,001	2.7	4.3	27,390	17.0
2008	170,804	2.8	1.7	28,560	17.0
2009	202,199	3.3	18.4	29,037	17.0
2010	250,625	4.1	23.9	34,374	17.0
2011	343,239	5.6	37.0	42,606	17.0
2012	357,256	5.8	4.1	58,351	17.0
2013	373,924	6.1	4.7	60,734	17.0
2014	590,194	9.6	57.8	63,567	17.0
2015	505,429	8.2	–14.4	100,333	17.0
2016	421,498	6.8	–16.6	85,923	17.0
2017	588,404	9.5	39.6	71,655	17.0
2018	218,312	3.5	–62.9	100,029	17.0
2019	500,137	8.1	129.1	37,113	17.0
2020	152,052	2.5	–70.0	85,023	17.0
2021	226,411	3.7	48.9	25,849	17.0
2022	197,356	3.2	–12.8	38,490	17.0
2023	303,529	5.2	53.8	33,551	17.0
2024	150,952	2.6	-50.3	51,600	17.0
2025	176,248	3.0	16.8	25,662	17.0
2026	n/a	n/a	n/a	29,962	17.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size

Table 26 Grey kangaroo temporal variation – Coonabarabran

Year	Population	Density	% change	Quota	% population
2001	2,078,208	33.7	45.2	112,700	7.9
2002	3,195,179	51.9	53.7	245,800	11.8
2003	1,824,168	29.6	–42.9	375,000	11.7
2004	1,259,605	20.5	–30.9	273,625	15.0
2005	702,576	11.4	–44.2	188,941	15.0
2006	905,594	14.7	28.9	105,386	15.0
2007	568,378	9.2	–37.2	135,839	15.0
2008	583,873	9.5	2.7	85,257	15.0
2009	695,066	11.3	19.0	87,581	15.0
2010	935,327	15.2	34.6	98,075	14.1
2011	1,089,829	17.7	16.5	135,214	14.5
2012	1,457,381	23.7	33.7	163,474	15.0
2013	2,071,115	33.6	42.1	218,607	15.0
2014	2,417,012	39.2	16.7	310,667	15.0
2015	1,836,656	29.8	–24.0	362,552	15.0
2016	1,089,374	17.7	–40.7	275,498	15.0
2017	915,211	14.8	–16.0	163,406	15.0
2018	1,274,243	20.7	39.2	133,875	14.6
2019	1,536,291	24.9	20.6	191,136	15.0
2020	891,090	14.4	–42.0	230,444	15.0
2021	1,035,233	16.8	16.2	133,663	15.0
2022	1,042,877	16.9	0	155,285	15.0
2023	611,307	10.4	–41.4	156,432	15.0
2024	952,744	16.3	55.9	91,696	15.0
2025	406,892	6.9	-57.3	142,912	15.0
2026	n/a	n/a	n/a	40,689	10.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.9 Kangaroo management zone number 11: Griffith*

Table 27 Red kangaroo temporal variation – Griffith*

Year	Population	Density	% change	Quota	% population
2001	447,833	4.6	13.9	43,110	11.0
2002	401,414	4.1	–10.4	48,600	10.9
2003	290,084	3.0	–27.7	35,200	8.8
2004	212,159	2.2	–26.9	49,314	17.0
2005	277,153	2.8	30.6	36,067	17.0
2006	221,656	2.3	–20.0	47,116	17.0
2007	292,970	3.0	32.2	37,682	17.0
2008	228,433	2.3	–22.0	49,805	17.0
2009	231,422	2.4	1.3	38,834	17.0
2010	245,208	2.5	6.0	39,342	17.0
2011	556,415	5.7	126.9	41,685	17.0
2012	366,603	3.7	–34.1	94,591	17.0
2013	536,580	5.5	46.4	62,322	17.0
2014	950,341	9.7	77.1	91,219	17.0
2015	589,282	6.0	–38.0	161,558	17.0
2016	601,325	6.1	2.0	100,178	17.0
2017	819,450	7.8	36.3	102,225	17.0
2018	284,853	2.7	–65.2	139,307	17.0

Notes: * = before 2019 zone number 11 covered one area, after 2019 this zone was divided into 2 and populations are now estimated for zones 17 and 18; see Tables 29 to 32; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 28 Grey kangaroo temporal variation – Griffith*

Year	Population	Density	% change	Quota	% population
2000	1,157,073	11.8	–7.0	131,050	10.5
2001	1,022,526	10.4	–11.6	147,600	12.8
2002	1,437,265	14.6	40.6	140,100	13.7
2003	874,589	8.9	–39.1	194,450	13.5
2004	722,872	7.4	–17.3	131,188	15.0
2005	701,493	7.1	–3.0	108,431	15.0
2006	677,124	6.9	–3.5	105,224	15.0
2007	571,999	5.8	–15.5	101,569	15.0
2008	638,262	6.5	11.6	85,800	15.0
2009	321,138	3.3	–49.7	95,739	15.0
2010	562,931	5.7	75.3	16,673	5.2
2011	541,306	5.5	–3.8	50,019	8.9
2012	700,388	7.1	29.4	78,012	14.4
2013	1,780,269	18.3	154.2	105,058	15.0
2014	1,376,362	14.0	–22.7	267,040	15.0
2015	1,476,232	15.0	7.3	206,454	15.0
2016	1,241,399	12.6	–15.9	221,435	15.0
2017	1,262,635	12.0	1.7	186,210	15.0
2018	919,282	8.7	–27.2	189,395	15.0

Notes: * = before 2019 zone number 11 covered one area, after 2019 this zone was divided into 2 and expanded prior to 2019 and population now estimated for zones 17 and 18; see Tables 29 to 32; % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size .

6.10 Kangaroo management zone number 17: Griffith North

Table 29 Red kangaroo temporal variation – Griffith North

Year	Population	Density	% change	Quota	% population
2019	159,645	2.4	n/a	0	0
2020	126,160	1.9	–21.0	27,123	17.0
2021	284,023	4.3	125.1	21,447	17.0
2022	199,456	3.0	–29.8	48,283	17.0
2023	39,344	0.6	–80.3	33,907	17.0
2024	381,298	6.0	869.1	0	0
2025	241,178	3.8	-36.7	64,821	17.0
2026	n/a	n/a	n/a	41,000	17.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set% change = % change in population size.

Table 30 Grey kangaroo temporal variation – Griffith North

Year	Population	Density	% change	Quota	% population
2019	1,029,202	15.7	n/a	0	0
2020	421,161	6.4	–59.0	154,380	15.0
2021	682,365	10.4	62.0	63,174	15.0
2022	941,071	14.3	37.9	102,354	15.0
2023	287,274	4.5	–69.5	141,161	15.0
2024	904,939	14.3	215.0	43,091	15.0
2025	470,833	7.4	-48.0	135,741	15.0
2026	n/a	n/a	n/a	70,625	15.0

Note: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set% change = % change in population size.

6.11 Kangaroo management zone number 18: Griffith South

Table 31 Red kangaroo temporal variation – Griffith South

Year	Population	Density	% change	Quota	% population
2019	106,788	1.7	n/a	0	0
2020	253,492	4.0	137.0	0	0
2021	113,125	1.8	–55.4	43,094	17.0
2022	331,894	5.2	193.4	19,231	17.0
2023	254,015	4.2	–23.5	56,422	17.0
2024	434,122	7.1	70.9	43,183	17.0
2025	98,080	1.6	-77.4	73,801	17.0
2026	n/a	n/a	n/a	16,674	17.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

Table 32 Grey kangaroo temporal variation – Griffith South

Year	Population	Density	% change	Quota	% population
2019	660,066	10.3	n/a	0	0
2020	371,796	5.8	–44	99,000	15.0
2021	511,201	8.0	37.5	55,769	15.0
2022	535,660	8.4	4.8	76,681	15.0
2023	403,451	6.6	–24.7	80,349	15.0
2024	836,793	13.7	107.4	60,518	15.0
2025	473,870	7.8	-43.4	125,519	15.0
2026	n/a	n/a	n/a	71,080	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size.

6.12 Kangaroo management zone number 9: Armidale

Table 33 Eastern grey kangaroo temporal variation – Armidale

Year	Population	Density	% change	Quota	% population
2000	206,600	12.7	5.0	33,450	17.0
2001	173,109	10.6	–16.0	35,100	17.0
2002	173,109	10.6	0	25,966	15.0
2003	180,456	11.0	4.0	25,966	15.0
2004	161,726	10.2	–10.0	27,068	15.0
2005	161,726	10.2	0	24,259	15.0
2006	161,726	10.2	0	24,259	15.0
2007	141,610	8.7	–12.0	24,259	15.0
2008	141,610	8.7	0	21,242	15.0
2009	141,610	8.7	0	21,242	15.0
2010	199,200	12.2	41.0	21,242	15.0
2011	206,780	13.1	4.0	29,880	15.0
2012	206,780	13.1	0	31,017	15.0
2013	263,300	16.1	27.0	31,017	15.0
2014	263,300	16.1	0	39,495	15.0
2015	263,300	16.1	0	39,495	15.0
2016	420,800	28.0	60.0	39,495	15.0
2017	420,800	28.0	0	63,120	15.0
2018	420,800	28.0	0	63,120	15.0
2019	416,660	26.7	–1.0	63,120	15.0
2020	416,660	26.7	0	62,499	15.0
2021	416,660	26.7	0	62,499	15.0
2022	446,700	28.3	5.9	62,499	15.0
2023	446,700	28.3	0	67,005	15.0
2024	446,700	28.3	0	67,005	15.0
2025	395,936	25.0	-11.4	67,005	15.0
2026	n/a	n/a	n/a	59,390	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

Table 34 Common wallaroo temporal variation – Armidale

Year	Population	Density	% change	Quota	% population
2000	125,600	7.7	5.0	5,975	5.0
2001	125,600	7.7	0	6,250	5.0
2002	125,600	7.7	0	6,250	5.0
2003	34,744	2.1	–72	6,250	5.0
2004	89,787	5.7	158.0	5,212	15.0
2005	89,787	5.7	0	13,468	15.0
2006	89,787	5.7	0	13,468	15.0
2007	37,859	2.3	–58	13,468	15.0
2008	37,859	2.3	0	5,679	15.0
2009	37,859	2.3	0	5,679	15.0
2010	41,255	2.5	9.0	5,679	15.0
2011	41,255	2.5	0	6,188	15.0
2012	41,255	2.5	0	6,188	15.0
2013	45,140	2.8	9.0	6,188	15.0
2014	45,140	2.8	0	6,771	15.0
2015	45,140	2.8	0	6,771	15.0
2016	134,310	8.2	197.5	6,771	15.0
2017	134,310	8.2	0	20,147	15.0
2018	134,310	8.2	0	20,147	15.0
2019	117,290	7.4	–12.7	20,147	15.0
2020	117,290	7.4	0	17,594	15.0
2021	117,290	7.4	0	17,594	15.0
2022	136,012	8.6	16.0	17,594	15.0
2023	136,012	8.6	0	20,402	15.0
2024	136,012	8.6	0	20,402	15.0
2025	27,082	0.9	-80.1	20,402	15.0
2026	n/a	n/a	n/a	0	0.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

6.13 Kangaroo management zone number 13: Glen Innes

Table 35 Eastern grey kangaroo temporal variation – Glen Innes

Year	Population	Density	% change	Quota	% population
2000	206,600	9.9	5.0	33,450	17.0
2001	221,975	10.6	7.0	35,122	17.0
2002	221,975	10.6	0	33,296	15.0
2003	229,723	11.0	3.0	33,296	15.0
2004	149,621	8.1	–35.0	34,458	15.0
2005	149,621	8.1	0	22,443	15.0
2006	149,621	8.1	0	22,443	15.0
2007	236,600	11.3	58.0	22,443	15.0
2008	236,600	11.3	0	35,490	15.0
2009	236,600	11.3	0	35,490	15.0
2010	269,500	12.9	14.0	35,490	15.0
2011	269,500	12.9	0	40,425	15.0
2012	269,500	12.9	0	40,425	15.0
2013	374,300	17.9	39.0	40,425	15.0
2014	374,300	17.9	0	56,145	15.0
2015	374,300	17.9	0	56,145	15.0
2016	587,400	34.0	57.0	56,145	15.0
2017	587,400	34.0	0	88,110	15.0
2018	587,400	34.0	0	88,110	15.0
2019	545,200	29.6	–7.2	88,110	15.0
2020	545,200	29.6	0	81,780	15.0
2021	545,200	29.6	0	81,780	15.0
2022	439,220	23.8	–19.4	81,780	15.0
2023	439,220	23.8	0	65,883	15.0
2024	439,220	23.8	0	65,883	15.0
2025	484,858	26.3	10.4	65,883	15.0
2026	n/a	n/a	n/a	72,729	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

Table 36 Common wallaroo temporal variation – Glen Innes

Year	Population	Density	% change	Quota	% population
2000	125,600	6.0	5.0	5,975	5.0
2001	215,500	10.3	72.0	6,250	5.0
2002	215,500	10.3	0	6,250	2.9
2003	128,232	6.1	–40.0	6,250	2.9
2004	56,657	3.1	–56.0	19,235	15.0
2005	56,657	3.1	0	8,499	15.0
2006	56,657	3.1	0	8,499	15.0
2007	59,570	2.8	5.1	8,499	15.0
2008	59,570	2.8	0	8,936	15.0
2009	59,570	2.8	0	8,936	15.0
2010	32,190	1.5	0	8,936	15.0
2011	32,190	1.5	0	4,829	15.0
2012	32,190	1.5	0	4,829	15.0
2013	28,305	1.4	–12.0	4,829	15.0
2014	28,305	1.4	0	4,246	15.0
2015	28,305	1.4	0	4,246	15.0
2016	101,565	4.9	258.8	4,246	15.0
2017	101,565	4.9	0	15,235	15.0
2018	101,565	4.9	0	15,235	15.0
2019	134,865	7.3	32.8	15,235	15.0
2020	134,865	7.3	0	20,230	15.0
2021	134,865	7.3	0	20,230	15.0
2022	116,624	6.3	–13.5	20,230	15.0
2023	116,624	6.3	0	17,493	15.0
2024	116,624	6.3	0	17,493	15.0
2025	154,544	4.5	32.5	17,493	15.0
2026	n/a	n/a	n/a	23,182	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

6.14 Kangaroo management zone number 14: Upper Hunter

Table 37 Eastern grey kangaroo temporal variation – Upper Hunter

Year	Population	Density	% change	Quota	% population
2000	168,750	11.6	5.0	27,350	17.0
2001	95,273	6.5	–44.0	25,313	15.0
2002	95,273	6.5	0	14,291	15.0
2003	94,251	6.5	–1.0	14,291	15.0
2004	67,499	4.8	–28.0	14,138	15.0
2005	67,499	4.8	0	10,125	15.0
2006	67,499	4.8	0	10,125	15.0
2007	92,016	6.3	36.0	10,125	15.0
2008	92,016	6.3	0	13,802	15.0
2009	92,016	6.3	0	13,802	15.0
2010	167,500	11.5	82.0	13,802	15.0
2011	167,500	11.5	0	25,125	15.0
2012	167,500	11.5	0	25,125	15.0
2013	126,800	8.7	–24.0	25,125	15.0
2014	126,800	8.7	0	19,020	15.0
2015	126,800	8.7	0	19,020	15.0
2016	259,600	32.5	105.0	19,020	15.0
2017	259,600	32.5	0	38,940	15.0
2018	259,600	32.5	0	38,940	15.0
2019	166,500	11.9	–35.9	38,940	15.0
2020	166,500	11.9	0	24,975	15.0
2021	166,500	11.9	0	24,975	15.0
2022	260,650	18.6	56.5	24,975	15.0
2023	260,650	18.6	0	39,098	15.0
2024	260,650	18.6	0	39,098	15.0
2025	288,482	20.6	10.7	39,098	15.0
2026	n/a	n/a	n/a	43,272	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

Table 38 Common wallaroo temporal variation – Upper Hunter

Year	Population	Density	% change	Quota	% population
2000	107,650	7.4	5.0	5,125	5.0
2001	107,650	7.4	0	5,350	5.0
2002	107,650	7.4	0	5,350	5.0
2003	57,762	4.0	–46.0	5,350	5.0
2004	61,660	4.4	7.0	8,664	15.0
2005	61,660	4.4	0	9,249	15.0
2006	61,660	4.4	0	9,249	15.0
2007^	80,105	5.5	29.9	9,249	15.0
2008^	80,105	5.5	0	12,016	15.0
2009^	80,105	5.5	0	12,016	15.0
2010	14,985	1.0	–67.0	5,287	6.6
2011	14,985	1.0	0	0	0
2012	14,985	1.0	0	1,499	10.0
2013	27,380	1.9	83.0	1,499	10.0
2014	27,380	1.9	0	4,107	15.0
2015	27,380	1.9	0	4,107	15.0
2016	135,790	9.2	395.9	4,107	15.0
2017	135,790	9.2	0	20,369	15.0
2018	135,790	9.2	0	20,369	15.0
2019	44,400	3.2	–67.3	20,369	15.0
2020	44,400	3.2	0	6,660	15.0
2021	44,400	3.2	0	6,660	15.0
2022	112,980	8.1	154.5	6,660	15.0
2023	112,980	8.1	0	16,946	15.0
2024	112,980	8.1	0	16,946	15.0
2025	23,265	0.9	-79.4	16,946	15.0
2026	n/a	n/a	n/a	2,326	10.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

6.15 Kangaroo management zone number 16: South East Tablelands

Table 39 **Eastern grey kangaroo temporal variation – South East Tablelands**

Year	Population	Density	% change	Quota	% population
2003	292,455	11.95	n/a	n/a	n/a
2004	292,455	11.95	0	43,868	15.0
2005	292,455	11.95	0	43,868	15.0
2006	415,271	14.07	42.0	43,868	15.0
2007	415,271	14.07	0	62,291	15.0
2008	415,271	14.07	0	62,291	15.0
2009	655,900	17.07	57.9	62,291	15.0
2010	655,900	17.07	0	98,385	15.0
2011	655,900	17.07	0	98,385	15.0
2012	858,900	22.35	30.9	98,385	15.0
2013	858,900	22.35	0	128,835	15.0
2014	858,900	22.35	0	128,835	15.0
2015	1,284,300	33.04	49.5	128,835	15.0
2016	1,284,300	33.04	0	192,645	15.0
2017	1,284,300	33.04	0	192,645	15.0
2018	1,721,400	41.3	34.0	192,645	15.0
2019	1,721,400	41.3	0	258,210	15.0
2020	1,721,400	41.3	0	258,210	15.0
2021	1,428,800	35.1	–17.0	258,210	15.0
2022	1,428,800	35.1	0	214,320	15.0
2023	1,428,800	35.1	0	214,320	15.0
2024	1,527,130	37.5	6.9	214,320	15.0
2025	1,527,130	37.5	6.9	229,070	15.0
2026	n/a	n/a	n/a	229,070	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

6.16 Kangaroo management zone number 48: Central Tablelands North

Table 40 **Eastern grey kangaroo temporal variation – Central Tablelands North**

Year	Population	Density	% change	Quota	% population
2008	433,030	17.8	0	n/a	n/a
2009	433,030	17.8	0	64,995	15.0
2010	433,030	17.8	0	64,995	15.0
2011	612,590	25.1	41.5	64,955	15.0
2012	612,590	25.1	0	91,889	15.0
2013	612,590	25.1	0	91,889	15.0
2014	1,193,600	48.9	95.0	91,889	15.0
2015	1,193,600	48.9	0	179,040	15.0
2016	1,193,600	48.9	0	179,040	15.0
2017	1,728,200	70.8	45	179,040	15.0
2018	1,728,200	70.8	0	259,230	15.0
2019	1,728,200	70.8	0	259,230	15.0
2020	777,350	31.9	–55.0	259,230	15.0
2021	777,350	31.9	0	116,602	15.0
2022	777,350	31.9	0	116,602	15.0
2023	866,790	35.5	11.5	116,602	15.0
2024	866,790	35.5	11.5	130,018	15.0
2025	866,790	35.5	11.5	130,018	15.0
2026	n/a	n/a	n/a	130,018	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.

6.17 Kangaroo management zone number 49: Central Tablelands South

Table 41 **Eastern grey kangaroo temporal variation – Central Tablelands South**

Year	Population	Density	% change	Quota	% population
2008	535,600	27.7	0	n/a	n/a
2009	535,600	27.7	0	80,340	15.0
2010	535,600	27.7	0	80,340	15.0
2011	347,830	18.0	–35.06	80,340	15.0
2012	347,830	18.0	0	52,175	15.0
2013	347,830	18.0	0	52,175	15.0
2014	811,800	41.9	133.0	52,175	15.0
2015	811,800	41.9	0	121,770	15.0
2016	811,800	41.9	0	121,770	15.0
2017	933,900	48.2	15	121,770	15.0
2018	933,900	48.2	0	140,085	15.0
2019	933,900	48.2	0	140,085	15.0
2020	488,270	25.2	–48.0	140,085	15.0
2021	488,270	25.2	0	73,240	15.0
2022	488,270	25.2	0	73,240	15.0
2023	739,397	38.2	51	73,240	15.0
2024	739,397	38.2	51	110,910	15.0
2025	739,397	38.2	51	110,910	15.0
2026	n/a	n/a	n/a	110,910	15.0

Notes: % population = the commercial harvest quota as a proportion of the previous year's population estimate, upon which the quota is set; % change = % change in population size. This management zone is surveyed by helicopter on a 3-yearly cycle and population estimates remain the same for the intervening period.