

2025 Quota Report

Commercial Kangaroo Harvest
South Australia



**Government
of South Australia**

Department for
Environment and Water

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Scope and Context

Legislation

All kangaroo species in South Australia are protected under the *National Parks and Wildlife Act 1972* (NPW Act), have value in ecosystem processes, and contribute to biodiversity. The NPW Act (section 60G) allows for the sustainable harvest of the following species of kangaroo:

- Red kangaroo (*Macropus rufus*)¹
- Western grey kangaroo (*M. fuliginosus*)
- Eastern grey kangaroo (*M. giganteus*)
- Euro (*M. robustus*)¹
- Tammar wallaby (*M. eugenii*)¹

The wildlife trade provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) regulate the export of kangaroo products from Australia. The harvest and export of these protected species requires a management plan endorsed under the NPW Act, and a Wildlife Trade Management Plan endorsed under the EPBC Act.

As of 1 January 2020, the SA Commercial Kangaroo Management Plan 2020-2024 (Management Plan) was approved by the then Minister for Environment and Water under the NPW Act, and approved by the Commonwealth Minister for Environment under the EPBC Act on 13 March 2020.

A new management plan is expected to come into action in early 2025 which will replace the 2020-2024 Management Plan. The new management plan includes an expansion to the commercial harvest boundary of the Hills and Fleurieu sub-region. Once approved, harvesting will be allowed in the expanded area during 2025 using quotas set under the current boundary.

Quotas are detailed in the annual Quota Report endorsed by the Director of National Parks and Wildlife and forwarded to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) for information.

This quota report has been developed in accordance with the 2020-2024 Management Plan and provides details on survey methods, population estimates and quotas for the five macropod species. A summary of harvest statistics for 2023 and the incomplete year of 2024 (January-October) are also included in the report.

Harvest regions used for quota setting

In accordance with the provisions of the Management Plan, annual harvest quotas are based on the results of surveys of kangaroo populations or model estimates.

Five harvest regions have been defined in the Management Plan: Western Pastoral, Eastern Pastoral, Western Agricultural, Eastern Agricultural and Southern Agricultural.

The harvest regions contain sub-regions (detailed in Table 1 and Figure 1) primarily based on the administrative boundaries of the former Soil Conservation Board districts (or an amalgamation thereof). Population estimates and commercial quotas are derived and set at the harvest sub-region level. Sub-region quotas can be re-distributed within each harvest region (but not between or among regions) in response to spatial or temporal changes in kangaroo abundance as per the Management Plan.

Table 1: Kangaroo harvest regions and sub-regions in South Australia.

Harvest Region	Harvest Sub-region
Eastern Pastoral	North Flinders
	North East Pastoral
	Eastern Districts
	Mallee
Western Pastoral	Marla-Oodnadatta,
	Marree (inside dog fence)
	Marree (outside dog fence)
	Kingoonya
Eastern Agricultural	Gawler Ranges
	South Flinders
Western Agricultural	Yorke Mid North
	Eyre East
Southern Agricultural	Eyre West
	Hills and Fleurieu
	Kangaroo Island
	Upper South East
	Lower South East

¹ This document recognises that the genus of red kangaroo and euro has been changed from *Macropus* to *Osphranter* and the genus of the Tammar wallaby has changed from *Macropus* to *Notamacropus*, however, for consistency with the *National Parks and Wildlife Act 1972*, the genus *Macropus* has been retained.

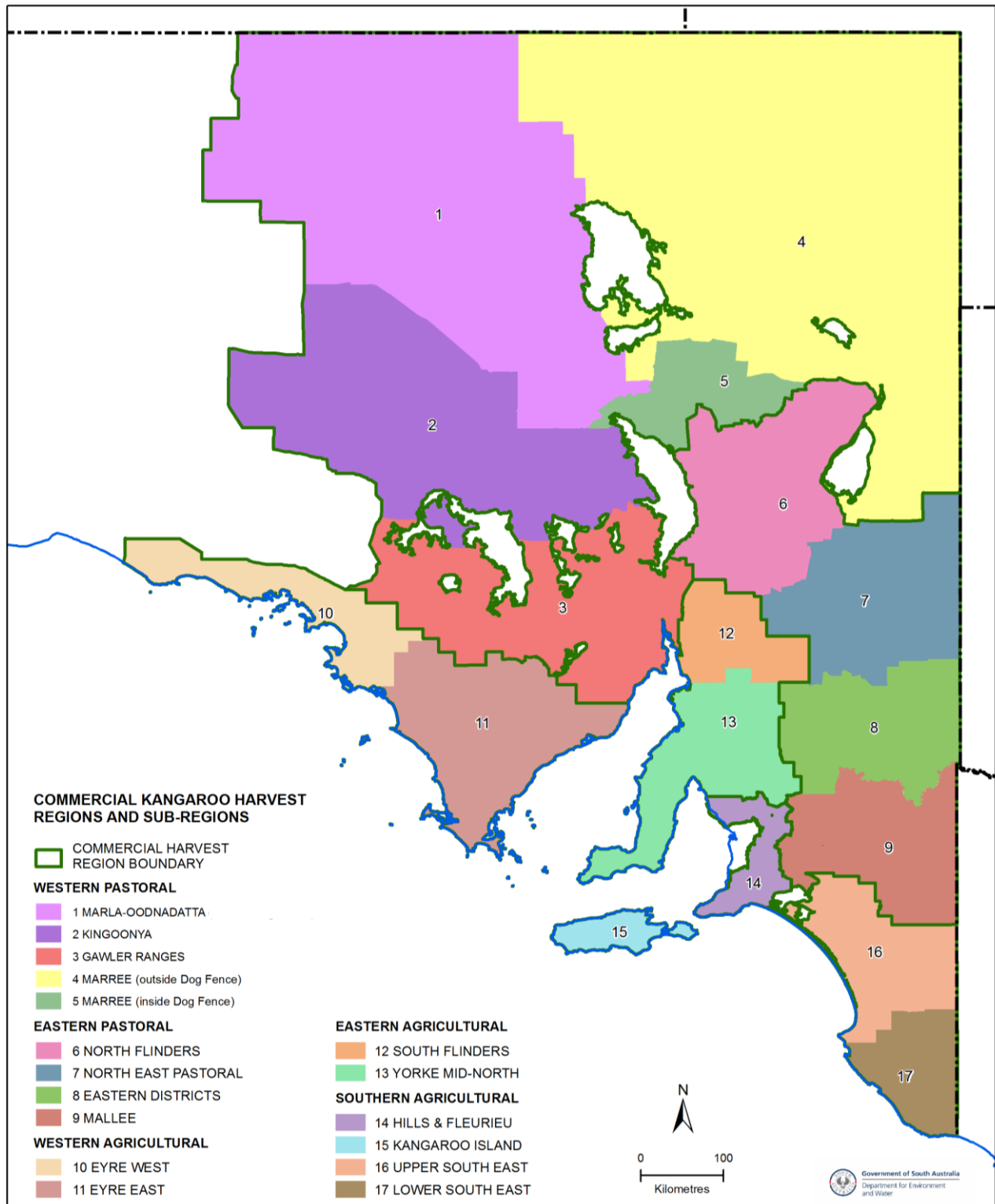


Figure 1: Map of harvest regions and sub-regions of South Australia

Kangaroo monitoring methods

Aerial (fixed-wing) and ground surveys (walking and driving) were used to survey kangaroo populations across South Australia between May and September 2024.

Aerial surveys

Aerial surveys for western grey and red kangaroos have been conducted annually since 1978 using standard transect lines. Surveys were conducted using standard 200 m fixed-strip width transect methodology with a fixed-wing aircraft (see Grigg et al. 1999 for further detail). Two observers (one on each side of the aircraft) counted kangaroos as the aircraft maintained a speed of 185 km/hour (100 knots) and altitude of 76 m (250 feet) above the ground. Raw counts were converted to density estimates for each harvest sub-region by applying species-specific habitat correction factors.

Ground survey

Ground surveys are employed in sub-regions where aerial surveys are considered unsafe, or dense vegetation prohibits observers from effectively counting kangaroos. Two types of ground surveys were used where aerial surveys were not possible: driving and walking surveys. Both survey methods used the line transect 'Distance' sampling method (Buckland et al. 2001, Miller 2016). The ground surveys were designed to obtain sufficient data for line transect analyses to typically return results with a coefficient of variance less than 25%. The coefficient of variation represents the dispersion of data around the mean estimate and is explained in more detail under the proportional harvest strategy section in this report.

Walking surveys are generally used to count euros. The technique aims to assess euro densities in targeted areas of suitable habitat, such as areas of rocky hilly terrain, within the species' distribution. Typically, a small sample area is surveyed in each harvest sub-region. These localised densities are used to develop regional densities for euros, by multiplying obtained survey densities by the amount of suitable euro habitat in each region.

Driving surveys for grey kangaroos (eastern and western) were conducted on public roads in the Hills and Fleurieu and Lower South East sub-regions to allow for comparison to the helicopter surveys. All survey blocks were surveyed 3 times in either the early morning or the late afternoon.

Landscape metric models

In areas where kangaroos are relatively consistent across the sub-region, such as in the arid zone, the average survey density has traditionally been multiplied across the sub-region. However, in fragmented landscapes where kangaroo distribution is strongly influenced by landscape structure a different approach is needed.

The thermal camera data collected during the helicopter surveys of the Lower South East in 2022 and the Hills and Fleurieu in 2023, provided an opportunity to explore the influence of landscape structure on kangaroo distribution. Thermal cameras capture the exact location of the kangaroo, thereby allowing the relationship between kangaroo distribution and landscape structure to be investigated. Analysis of the thermal camera data showed kangaroos were more likely to be seen on the edge of vegetation patches (native vegetation, pine plantations or blue gum plantations) that were adjacent to open pasture. The size and shape of the vegetation patch also influenced the likelihood of seeing a kangaroo. Based on these results, a landscape metric model for each sub-region (Lower South East and Hills and Fleurieu) was developed and used to extrapolate the thermal data by determining the probability of finding a kangaroo across the landscape.

Lower South East sub-region

Driving surveys were conducted in the Lower South East during 2024, with western grey and eastern grey kangaroos targeted. The same transects that were developed during 2022 for correlation of the ground survey data to the helicopter thermal camera data were used again during 2024. The 2024 driving survey data did not correlate adequately to the landscape metric model, therefore a conservative approach has been taken and last year's (2023) population estimate has been used to set quotas for 2025.

Hills and Fleurieu sub-region

The 2024 Quota Report used thermal camera data collected via a helicopter survey to produce a landscape metric model for the Hills and Fleurieu sub-region. The thermal camera data were then extrapolated across the sub-region using the landscape metric model to calculate the population estimate for the Hills and Fleurieu sub-region this year. The population estimate for western grey kangaroos in Hills and Fleurieu sub-region was 11.9/ km².

Driving surveys were conducted during 2023 with the aim to scale up the driving data to the thermal camera data in the same way that has been done for the Lower South East. However, analysis of the 2023 driving data showed that the driving data did not correlate well enough to the thermal camera data to allow a scaling factor to be created. Therefore, for this report and the development of the 2025 quotas, the population estimate from 2023 has been carried over for western grey kangaroos.

Kangaroo population models

Annual population estimates have been generated from targeted kangaroo survey data for South Australia since the late 1970s using a traditional arithmetic approach. These provide long-term consistent population estimates but cannot be generated for areas that are not surveyed in a particular year, nor can they provide insights into future population trajectories under different management or climate scenarios. To address these limitations and complement the traditional estimates, modern population modelling approaches have also been applied to quota setting.

A sophisticated state-space population model for red kangaroos and western grey kangaroos was developed in collaboration with Dr Tom Prowse of the University of Adelaide (Prowse, 2021). This model has been applied to established harvest sub-regions since 2021 (where long-term data exists). Where there is limited or sparse data, the estimates from this model may have lower reliability.

In sub-regions that were surveyed this year, the traditional arithmetic approach has been used for both red and western grey kangaroos. For other sub-regions that were not surveyed, the state-space population model estimate has been used for western grey kangaroos. For red kangaroos, the population model was used for Gawler Ranges and Kingoonya sub-regions. However, for sub-regions where data sets have gaps between surveys or had fewer years of data, model predictions may be unreliable. Due to these limitations, abundance estimates for red kangaroos in sub-regions Marla- Oodnadatta, Marree (outside dog fence), Marree (inside dog fence), Mallee and Yorke Mid North have been taken from the 2024 Quota Report and quota reduced to 10% of the population estimate (Appendix 1).

Quota setting procedures

Proportional harvest strategy

Sustainable Use and Special Land Management Quotas outlined in this report represent a constant proportional harvest strategy for kangaroos in South Australia.

Quotas are set at a maximum of 20% of the estimated population size of red kangaroos, 15% of western grey kangaroos, eastern grey kangaroos and euros, and 10% of Tamar wallabies.

Conservative quota percentages have been applied to sub-regions that are not surveyed on an annual basis and where a population model does not exist. Conservative quotas are also applied where the coefficient of variation (CV) associated with the density estimate is greater than 25%. For data with CVs greater than 25%, quotas are reduced by 3% of the standard proportion of the population estimate (e.g. for euros, quotas are reduced from 15% to 12% of the population estimate) in accordance with the Management Plan.

Some of the variation in the data can be explained by the patchy nature of kangaroos in the landscape, however high levels of variation suggest that there is more uncertainty in the mean estimate. For aerial survey data, the CV is calculated as the standard error (\sim standard deviation (SD) on a set of independent estimates) of the density estimates across all transects for each harvest sub-region using the ratio estimate (Sinclair et al. 2006). The standard error is then divided by the mean density of kangaroos for the harvest sub-region to give the CV, which is expressed as a percentage. For ground survey data the CV is calculated as the SD divided by the mean.

Quotas for 2025 are set at both the harvest region and sub-regional levels to enable more accurate management of quota throughout the year. Quotas are rounded down to the nearest hundred animals.

Low population thresholds

In accordance with the Management Plan, thresholds are set to restrict or close commercial harvest in each sub-region when the population estimate falls below a particular level. The thresholds are based on the long-term average of population size calculated for each harvest sub-region where sufficient data is available. If survey results or model estimates indicate a population has fallen below 1.5 SD of the long-term mean, the harvest quota will be reduced to 10% of the population estimate. If survey results or model estimates indicate

that the population has fallen below 2 SD of the long-term mean, the harvest quota will be suspended. These restrictions will remain in place until surveys indicate populations have increased.

High Abundance Quota

High Abundance Quota (HAQ) is intended for reducing kangaroo populations during times of high abundance. The HAQ is an additional quota to the Sustainable Use Quota and issued at the discretion of the Director of National Parks and Wildlife (refer to Aim 4 of Management Plan for more information).

No HAQ has been issued for 2025.

Special Land Management Quota

Special Land Management Quota (SLMQ) for 2025 has been set at 1.5% of the total estimated population for each species. SLMQ may be released in sub-regions where the Sustainable Use Quota has been fully allocated and land managers are experiencing ongoing kangaroo related land management impacts.

SLMQ allows the Department to respond to the needs of land managers in a timely manner, while encouraging the commercial take of kangaroos if possible. This quota component is only for the harvest of kangaroos that would otherwise be culled under non-commercial Permits to Destroy Wildlife, and is designed to minimise the number of kangaroos destroyed under these permits and not utilised. Permits to Destroy Wildlife are not considered as part of the quota, but numbers of kangaroos permitted for destruction on permits are reported in the annual Harvest Report.

Survey frequency

In accordance with the Management Plan, survey frequency has been reduced to every 3 years where the harvest is above the low-harvest threshold (set at 1.5% of the average population estimate for each sub-region), except for the three core sub-regions surveyed annually. Where the harvest is below this threshold for 3 consecutive years, surveys will stop in the established harvest regions (Western Pastoral, Eastern Pastoral, Western Agricultural, Eastern Agricultural), or be reduced to every five years in the Southern Agricultural harvest region (as per the Management Plan).

2024 Surveys

Sub-regions surveyed 2024

Based on a risk assessment analysis that included harvest rate, previous population density, timing of last survey, natural disasters that had occurred since last survey (e.g. bushfires) and availability of model estimates, 5 sub-regions were surveyed during 2024.

Sub-regions surveyed included three 'core' sub-regions that are monitored annually to help inform the population models (North East Pastoral, South Flinders and Eastern Districts), as well as the following sub-regions: North Flinders, and Lower South East.

In sub-regions that were not surveyed this year and where long-term data exists, the kangaroo population model (either red kangaroo or western grey kangaroo model) was used to predict the population density.

Euros have a consistently low harvest across all sub-regions where they are present. During 2024, euros were surveyed in the Eastern Districts sub-region. In sub-regions that were not surveyed during 2024, population estimates derived from surveys undertaken in 2018, 2022 and 2023 have been used to set quota for 2025. For surveys conducted between 2018 and 2023 the quota percentage has been reduced to 10% of the population estimate.

Low harvest threshold

Harvest rates have fallen below the low harvest threshold for the three species across several sub-regions based on the previous three year's harvest (2021-2023; Table 2). However, harvests for Marree (outside dog fence) for red kangaroos, North Flinders and North East Pastoral for euros, and North East Pastoral for western grey kangaroos are artificially low as commercial harvest was suspended at least once in the previous three years for these sub-regions.

No further surveys will be conducted in these sub-regions until harvest rates exceed the threshold for at least one species, or the maximum time between surveys lapses as detailed in the Management Plan. Note that 'core' sub-regions (North East Pastoral, South Flinders and Eastern Districts) are surveyed annually to inform population models and are exempt from this rule.

Table 2: Sub-regions where harvest rates have fallen below the low harvest threshold for each species, calculated as 1.5% of the average population estimate for each species in each sub-region.

**** Harvest was suspended for sub-region during 2021-2023.*

*** Harvest was suspended during 2021 and 2022.*

** Harvest was suspended for sub-region during 2021.*

Species	Sub-region
Red kangaroo	Marla – Oodnadatta*
	Marree (outside dog fence)***
	Marree (inside dog fence)
Western grey kangaroo	Gawler Ranges
	Kingoonya
	North East Pastoral*
	Eyre East
	Eyre West
Euro	Marree (inside dog fence)
	North Flinders**
	Eastern Districts
	North East Pastoral*

Population estimates

Red kangaroo

The estimated size of the red kangaroo population across the harvest area is 2,975,551. This is an increase of 47% from the previous year total of 2,019,168 and 90% higher than the 20-year rolling average of 1,562,126 (2004-2023 data).

Population estimates reported in the 2024 Quota Report have been used again this year to set 2025 quotas for the following sub-regions: Marla-Oodnadatta, Marree IDF, Marree ODF, Mallee and Yorke Mid North. As per the Management Plan, the quotas for these sub-regions have been reduced to 10% of the population estimate.

Population estimates calculated directly from this year's surveys have been used for North East Pastoral, Eastern Districts, North Flinders and South Flinders. Population model estimates generated this year have been used for Kingoonya and Gawler Ranges sub-regions.

Population estimates for Kingoonya, Gawler Ranges, Eastern Districts, North Flinders, South Flinders and North East Pastoral were all above their respective 20-year rolling averages (2004-2023).

The population estimate was carried over again for Marree ODF and therefore harvest will remain suspended in this sub-region for 2025 (Figure 2).

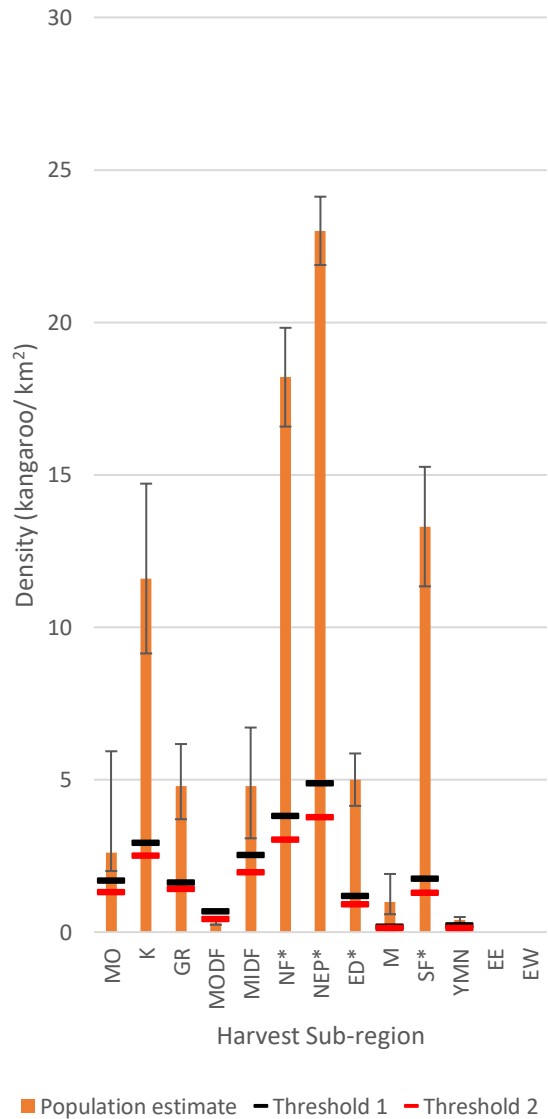


Figure 2: Red kangaroo population density estimates in each sub-region (excluding the Southern Agricultural harvest region) compared to low population threshold 1 (black) and 2 (red). Error bars represent 95% confidence intervals. Estimates for NEP, ED, SF and YMN are aerial survey estimate from 2024 data. Estimates for K and GR are model estimates for 2024. MO, MODF, MIDF, NF and M are 2022 model fitted estimates. MO = Marla-Oodnadatta, K = Kingoonya, GR = Gawler Ranges, MODF = Marree (outside dog fence), MIDF = Marree (inside dog fence), NF = North Flinders, NEP = North East Pastoral, ED = Eastern Districts, M = Mallee, SF = South Flinders, YMN = Yorke Mid-North, EE = Eyre East, EW = Eyre West.

Mainland western grey kangaroo

The estimated size of the western grey kangaroo population across the harvest area (excluding Southern Agricultural harvest region) is 938,598. This is a 46% increase from the 2023 population estimate of 643,427 and 2% above the 20-year rolling average of 924,548 (2004-2023 data).

The population in the Southern Agricultural harvest region is estimated at 311,144, the same as last year as population estimates from the 2024 Quota Report have been used again to set quotas for 2025.

Density estimates for 2024 were below the 20-year rolling average (2004-2023) in Gawler Ranges, Eastern Districts, North East Pastoral, Mallee, Eyre East and Eyre West and above the rolling 20-year average for Kingoonya, North Flinders, South Flinders and Yorke Mid North.

Western grey kangaroo density estimate for Eastern Districts increased above the first low population threshold, based on the direct survey estimate, and therefore a full quota has been issued for 2025 in Eastern Districts (Figure 3).

Density estimates for western grey kangaroos in Upper South East, Lower South East and Hills and Fleurieu sub-regions have been carried over from last year, and reduced to 10% of the 2023 population estimates.

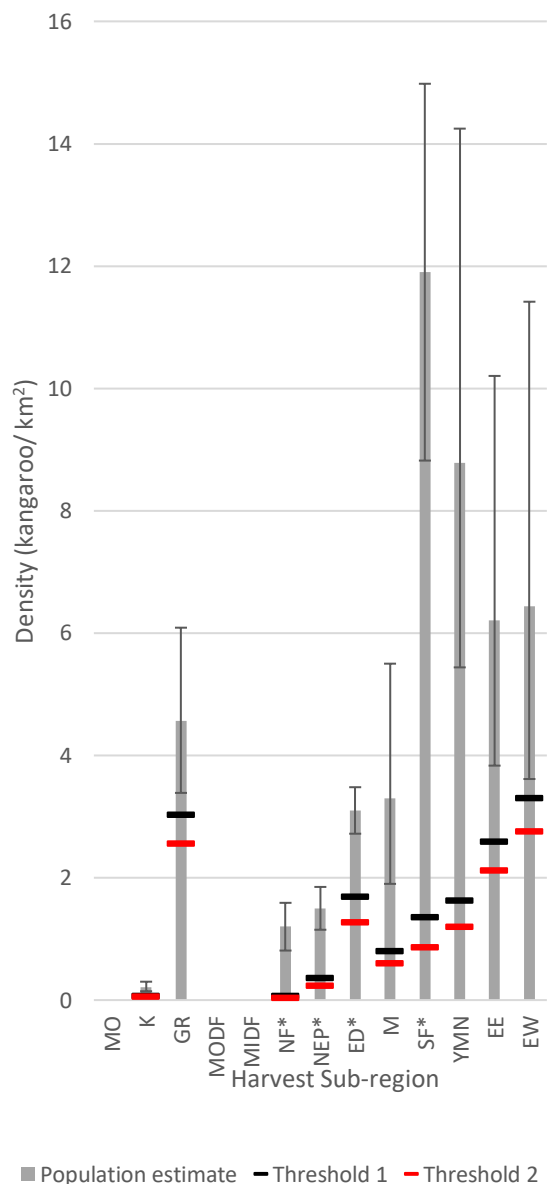


Figure 3: Western grey kangaroo population density estimates in each sub-region (excluding the Southern Agricultural harvest region) compared to low population threshold 1 (black) and 2 (red). Error bars represent 95% confidence intervals. Estimates for NEP, ED, SF and NF are based on 2024 survey estimates. All other estimates are predicted model results. MO = Marla-Oodnadatta, K = Kingoonya, GR = Gawler Ranges, MODF = Marree (outside dog fence), MIDF = Marree (inside dog fence), NF = North Flinders, NEP = North East Pastoral, ED = Eastern Districts, M = Mallee, SF = South Flinders, YMN = Yorke Mid-North, EE = Eyre East, EW= Eyre West.

Euro

During 2024, one sub-region was surveyed for euros – Eastern Districts. Other population estimates used to set 2025 quotas have come from data collected between 2018 and 2023. The density estimate obtained from the walking survey conducted in the Eastern Districts sub-region was 10.8/km². The 2024 density is a substantial increase in euro numbers from the 2021 estimate (2.5/km²) and is above the 20-year rolling average (2004-2023) for Eastern Districts.

The estimated size of the euro population across the commercial harvest area is 460,774, an increase of 7% from the 2023 estimate of 430,872 and 5% below the 20-year rolling average of 487,540 (2004-2023 data). The increase in the euro population is most likely due to the rainfall experienced by the State over the previous 12-18 months.

Kangaroo Island western grey kangaroo

Kangaroo Island was not surveyed during 2024 due to the low harvest rate over the last 3 years and the population estimate from 2021 have been used again to set the 2025 quota for western grey kangaroos on the island. The population density estimated in 2021 was 9.5/km² or 41,781 western grey kangaroos. The quota has been held at 10% of the 2021 population estimate.

Tammar wallaby

Tammar wallabies were not surveyed during 2024 due to the low harvest rate over the last 3 years. The population density estimate reported in the 2024 Quota report was 89.8/km² or 384,671 wallabies. The population estimate in the 2024 Quota Report and corresponding quota, set at a conservative 5%, has been used to set quota for 2025.

Eastern grey kangaroo

The population estimate for 2023 in the 2024 Quota Report has been used to set quota for eastern grey kangaroos in the Lower South East for 2025. During 2023 the driving survey data corrected for both landscape metric model and thermal camera data produced a density of 10.6/km² eastern grey kangaroos. This estimate has been used again, and quota has been reduced to 10% of the population estimate.

Adaptive management experiments

Aim 6 of the Management Plan allows for adaptive management experiments to improve the management of kangaroos.

No adaptive management experiments were carried out during 2024.

Harvest statistics

Harvest 2023

During 2023, the commercial kangaroo harvest in South Australia was 100,594 including Special Land Management Quota (data from 2023 Commercial Kangaroo Harvest Report for South Australia). This figure represents 16% of the approved quota of 634,200 (including Special Land Management Quota, Table 3). During 2023, Special Land Management Quota (SLMQ) of 2,000 was issued for euros in the North Flinders sub-region. A total of 1754 euros were harvested under Special Land Management Quota. The total commercial harvest based on kangaroo field processor returns was 101,180; a discrepancy of 0.08% between field processor and meat processor returns was noted.

Table 3: Harvest summary calculated for 2023 from meat processor returns (including Special Land Management Quota). Note that Special Land Management Quotas of 2000 euros for North Flinders were released during 2023, these data are included in the table below.

Species	Quota	Harvest	% Quota Harvested
Red kangaroo	338,100	58,644	17 %
Western grey kangaroo	221,200	28,403	13 %
Euro	34,900	6,049	17 %
Eastern grey kangaroo	15,100	7,445	49 %
Tammar wallaby	24,900	53	<1 %
Total	634,200	100,594	16 %

The largest harvest of red kangaroos occurred in the Eastern Pastoral harvest region, with 26,182 kangaroos harvested, however, the harvest region with the highest percentage of available quota harvested was Eastern Agricultural (58%, Table 4). Western grey kangaroos had the highest harvest in the Eastern Pastoral harvest region of 9,598, but the harvest region with the largest percentage of harvest was Southern Agricultural with 26% of the available quota harvested (Table 4). Euros were most harvested in both total take and percentage of quota taken in the Eastern Agricultural harvest region (2,643 kangaroos, 33% of quota, Table 4). Eastern grey kangaroos were available for harvest in one harvest sub-region (Lower South East) within the Southern Agricultural harvest region and had the highest proportion of quota harvested of any species, 49% of quota harvested equating to 7,455 kangaroos (Table 4).

Table 4: Harvest statistics for 2023 from field processor returns. Excludes Special Land Management Quota.

Harvest Region	Red kangaroo			Western grey kangaroo			Euro			Eastern grey Kangaroo			Tammar wallaby		
	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %
Western Pastoral	166,000	23,913	14 %	39,300	3,718	9 %	14,200	1,569	11 %						
Eastern Pastoral	133,400	26,182	20 %	42,700	5,722	13%	7,000	38	1 %						
Western Agricultural				34,900	460	1 %									
Eastern Agricultural	14,400	8,361	58 %	50,200	9,598	19 %	8,100	2,643	33 %						
Southern Agricultural				33,100	8,508	26 %				13,800	7,569	55 %	19,200	53	<1 %
Total	313,800	58,456	19 %	200,200	28,006	14 %	29,300	4,250	15 %	13,800	7,569	55 %	19,200	53	<1 %

Harvest January to October 2024

A total of 88,782 kangaroos (not including Special Land Management Quota (SLMQ)) were harvested by field processors during the first 10 months of 2024 (1 January – 31 October 2023; Table 5). This represents 15% of the combined sustainable use harvest quota for the year. Based on current harvest rates, the projected harvest for 2024 for all species is 106,537, 18% of the sustainable use quota.

The harvest projection for 2024 of 106,537 kangaroos (Table 5) is higher than last year's harvest of 100,594 (calculated from field processor returns, excluding Special Land Management Quota).

A harvest summary for each species in each harvest region for the 2024 year-to-date (1 January – 31 October) is shown in Table 6.

Table 5: Harvest statistics for 2024 from field processor returns. Excludes Special Land Management Quota (SLMQ) and harvest under SLMQ.

Species	Quota	Actual (1 Jan - 31 October)		Projected (1 Jan – 31 Dec)	
		Harvest	Harvest as % of Quota	Harvest	Harvest as % of Quota
Red kangaroo	343,200	53,186	15 %	63,823	19 %
Western grey kangaroo	138,200	24,821	18 %	29,785	22 %
Euro	58,200	4,444	8 %	5,332	9 %
Eastern grey kangaroo	18,200	6,331	35 %	7,597	42 %
Tammar wallaby	19,200	0	0 %	0	0 %
Total	577,000	88,782	15 %	106,537	18 %

Table 6: Harvest region harvest summary calculated from field processor returns for 1 January to 31 October 2024. Excludes Special Land Management Quota.

Harvest Region	Red kangaroo			Western grey kangaroo			Euro			Eastern grey kangaroo			Tammar wallaby		
	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %	Quota	Harvest	Harvest %
Western Pastoral	190,200	19,722	10 %	18,600	3,653	20 %	24,100	976	4 %						
Eastern Pastoral	130,900	24,839	19 %	15,300	4,398	29 %	22,500	1,249	6 %						
Western Agricultural				19,800	176	1 %									
Eastern Agricultural	22,100	8,625	39 %	40,100	8,178	20 %	11,600	2,219	19 %						
Southern Agricultural				44,000	8,416	19 %				18,200	6,331	35 %	19,200	0	0 %
Total	343,200	53,186	15 %	137,800	24,821	18 %	58,200	4,444	8 %	18,200	6,331	35 %	19,200	0	0%

2025 Quotas

Commercial kangaroo harvesting quotas for the 2025 quota year for South Australia are shown in Table 7. The 2025 harvest region quotas for each species are shown in Tables 9-13. Historically, the highest annual quotas have been 555,000 for red kangaroos (1997), 280,000 for western grey kangaroos (1997), and 103,000 for euros (1997).

Table 7: Commercial kangaroo harvesting quotas for 2025 and comparison with the 2024 quotas. Quotas do not include Special Land Management Quota.

Species	2024	2025	% Change 2024-2025
Red kangaroo	343,200	563,900	64%
Western grey kangaroo	138,200	164,200	19%
Euro	58,200	46,400	-20%
Eastern grey kangaroo	18,200	12,100	-34%
Tammar wallaby	19,200	19,200	0%
Total Quota	577,000	805,800	40%

Regional harvest quotas for 2025

Table 8: Red kangaroo population estimates in 2024 and harvest quotas for 2025. Population densities and estimates are produced from the red kangaroo population model except where stated otherwise. Not Applicable (NA) denotes sub-regions where the species is not present, based on its distribution, therefore no surveys are conducted, and no quota has been set in these sub-regions.

Harvest region	Area (km ²)	Pop density/ km ²	Pop estimate	Harvest %	Quota
Western Pastoral					234,800
Marla – Oodnadatta ^{1,2}	129,832	2.6	155,064	10	15,500
Kingoonya ⁴	72,470	11.6	841,531	20	168,300
Gawler Ranges ⁴	45,808	4.8	220,013	20	44,000
Marree (inside dog fence) ^{1,2}	14,680	4.8	70,254	10	7,000
Marree (outside dog fence) ^{1,2}	177,517	0.3**	26,628	0	0
Eastern Pastoral					296,900
North Flinders ⁵	34,622	18.2	630,120	20	126,000
North East Pastoral ⁵	31,448	23.0	723,304	20	144,600
Eastern Districts ^{4, 5}	24,018	5.0	120,090	20	24,000
Mallee ²	23,994	1.0	23,825	10	2,300
Eastern Agricultural					32,200
South Flinders ⁵	11,884	13.3	158,057	20	31,600
Yorke Mid North ^{1,3}	22,217	0.4	6,665	10	600
Western Agricultural					0
Eyre West	16,533	NA	NA	NA	NA
Eyre East	31,294	NA	NA	NA	NA
Total	636,317		2,975,551		563,900
Special Land Management Quota⁶					44,600
Total quota available for 2025					608,500

¹ Model population prediction scaled to 45% area suitability for Marla-Oodnadatta, 50% area suitability for Marree (outside dog fence) and 75% area suitability for Yorke Mid North.

² Population estimate carried over from 2023 Quota Report.

³ Population estimate carried over from 2024 Quota Report.

⁴ Population model prediction used to develop estimate.

⁵ Direct survey estimate used from 2024 aerial surveys to develop population estimate.

⁶ Special Land Management Quota has been set at 1.5% of the total population estimate for the commercial harvest area.

** Red kangaroo populations in Marree (outside dog fence) sub-regions have reached the second low population threshold and quota has been suspended.

Table 9: Western grey kangaroo population estimates in 2024 and harvest quotas for 2025. Population densities and estimates are produced from the western grey kangaroo population model, except where stated otherwise. Not Applicable (NA) denotes sub-regions where the species is not present, based on its distribution, therefore no surveys are conducted, and no quota has been set in these sub-regions.

Harvest region	Area (km ²)	Pop. density/ km ²	Pop. estimate	Harvest %	Quota
Western Pastoral					33,500
Marla – Oodnadatta	129,832	0.0	NA	0	0
Kingoonya	72,470	0.2	15,166	15	2,200
Gawler Ranges	45,808	4.6	209,130	15	31,300
Marree (inside dog fence)	14,680	0.0	NA	0	0
Marree (outside dog fence)	177,517	0.0	NA	0	0
Eastern Pastoral					33,400
North Flinders ²	34,622	1.2	41,546	12	4,900
North East Pastoral ²	31,448	1.5	47,172	12	5,600
Eastern Districts ²	24,018	3.1	74,456	15	11,100
Mallee	23,994	3.3	79,228	15	11,800
Eastern Agricultural					35,900
South Flinders ²	11,884	11.9	141,420	12	16,900
Yorke Mid North ¹	22,217	8.8	126,851	15	19,000
Western Agricultural					30,400
Eyre West	16,533	6.4	106,522	15	15,900
Eyre East ¹	31,294	6.2	97,108	15	14,500
Southern Agricultural					31,000
Hills and Fleurieu ³	7,137	11.9	74,020	10	7,400
Lower South East ⁴	11,508	7.5	86,310	10	8,600
Upper South East ³	18,238	6.0	109,428	10	10,900
Kangaroo Island ⁵	4,398	9.5	41,781	10	4,100
Total	677,598		1,250,137		164,200
Special Land Management Quota⁶					18,700
Total quota available for 2025					182,900

¹Model population prediction scaled to 50% area suitability for Eyre East, and 65% area suitability for Yorke Mid North.

²Direct survey estimate used from 2024 aerial surveys to develop population estimate.

³Population estimate carried over from 2024 Quota Report and reduced to 10% of the population estimate.

⁴Driving survey conducted during 2023 and corrected for both thermal data and landscape metric model by applying the scaling factor, quota reduced to 10% of population estimate.

⁵Quota has been reduced to 10% of the population estimate as population estimate from 2021 has been used.

⁶Special Land Management Quota has been set at 1.5% of the total population estimate for the commercial harvest area.

Table 10: Euro population estimates in 2024 and harvest quotas for 2025. Not Applicable (NA) denotes sub-regions where the species is not present, based on its distribution, therefore no surveys are conducted, and no quota has been set in these sub-regions.

Harvest region	Area (km ²)	% Area suitable	Pop density /km ²	Pop estimate	Harvest %	Quota
Western Pastoral						18,000
Marla – Oodnadatta	129,832	NA	NA	NA	NA	NA
Kingoonya	72,470	NA	NA	NA	NA	NA
Gawler Ranges ³	45,808	25	10.7	122,536	10	12,200
Marree (inside dog fence) ¹	14,680	15	26.5	58,353	10	5,800
Marree (outside dog fence)	177,517	NA	NA	NA	NA	NA
Eastern Pastoral						20,300
North Flinders ³	34,622	25	13.5	116,849	10	11,600
North East Pastoral ²	31,448	15	8.9	41,983	10	4,100
Eastern Districts ⁴	24,018	15	10.8	38,909	12	4,600
Mallee	23,994	NA	NA	NA	NA	NA
Eastern Agricultural						8,100
South Flinders ³	11,884	20	25.4	60,371	10	6,000
Yorke Mid North ³	22,217	20	4.9	21,773	10	2,100
Western Agricultural						0
Eyre West	16,533	NA	NA	NA	NA	NA
Eyre East	31,294	NA	NA	NA	NA	NA
Total	636,317			460,774		46,400
Special Land Management Quota⁵						6,900
Total quota available for 2025						53,300

¹Sub-region surveyed during 2018, quota reduced to 10% of population estimate.

²Sub-region surveyed during 2022, quota reduced to 10% of population estimate.

³Sub-region surveyed during 2023, quota reduced to 10% of population estimate.

⁴Sub-region surveyed during 2024.

⁵Special Land Management Quota has been set at 1.5% of the total population estimate for the commercial harvest area.

Table 11: Eastern grey kangaroo population estimates in 2024 and harvest quotas for 2025. Not Applicable (NA) denotes sub-regions where the species is not present, based on its distribution, therefore no surveys are conducted, and no quota is set in these areas.

Harvest region	Area (km ²)	Pop density/ km ²	Pop estimate	Harvest %	Quota
Southern Agricultural					
Hills and Fleurieu	7,137	NA	NA	NA	NA
Upper South East	18,238	NA	NA	NA	NA
Lower South East ¹	11,508	10.6	121,539	10	12,100
Kangaroo Island	4,398	NA	NA	NA	NA
Total	41,281		121,539		12,100
Special Land Management Quota²					1,800
Total quota available for 2025					13,900

¹ Driving survey conducted during 2023 and corrected for both thermal data and landscape metric model by applying the scaling factor, quota reduced to 10% of population estimate.

² Special Land Management Quota has been set at 1.5% of the total population estimate for the commercial harvest area.

Table 12: Tammar wallaby population estimates in 2022 and harvest quotas for 2025. Not Applicable (NA) denotes sub-regions where the species is not present based on its distribution and therefore no surveys are conducted, and no quota is set in these areas.

Harvest region	Area (km ²)	Pop density/ km ²	Pop estimate	Harvest %	Quota
Southern Agricultural					
Hills and Fleurieu	7,137	NA	NA	NA	NA
Upper South East	18,238	NA	NA	NA	NA
Lower South East	11,508	NA	NA	NA	NA
Kangaroo Island ¹	4,398	89.5	384,671	5	19,200
Total	41,281		384,671		19,200
Special Land Management Quota²					5,700
Total quota available for 2025					24,900

¹ Nighttime drone survey with thermal cameras was conducted during Dec 2020, Feb 2021 and Feb 2022 across 10 survey sites on the island. Quota has been reduced to 5% of the population estimate as a conservative approach given this is a new method.

Density has been extrapolated across the 4298 km² of the island, 100km² removed to account for towns and lakes.

² Special Land Management Quota has been set at 1.5% of the total population estimate for the commercial harvest area.

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Appendix 1

Table A1: Results of model and survey density estimates for Red Kangaroos and Western Grey Kangaroos as they relate to management actions, full quota issued, reduced quota issued (population below first low population threshold) or harvest suspended (population below second low population threshold). In sub-regions where the model and survey estimate produced different management actions, the more conservative management action was used. Results used in this quota report are highlighted in bold.

Harvest region	Last Survey	Red kangaroo		Western Grey Kangaroo	
		2024 Survey Result	Model Result	2024 Survey Result	Model Result
Western Pastoral					
Marla – Oodnadatta*	2022	NA	Full quota	-	-
Kingoonya	2022	NA	Full quota	NA	Full quota
Gawler Ranges	2022	NA	Full quota	NA	Full quota
Marree (inside dog fence)*	2021	NA	Full quota	-	-
Marree (outside dog fence)*	2021	NA	Full quota	-	-
Eastern Pastoral					
North Flinders*	2024	Full quota	Full quota	Full quota	Full quota
North East Pastoral	2024	Full quota	Full quota	Full quota	Full quota
Eastern Districts	2024	Full quota	Full quota	Full quota	Full quota
Mallee*	2022	NA	Full quota	NA	Full quota
Eastern Agricultural					
South Flinders	2024	Full quota	Full quota	Full quota	Full quota
Yorke Mid North	2023	NA	Full quota	NA	Full quota
Western Agricultural					
Eyre West	2021	-	-	NA	Full quota
Eyre East	2021	-	-	NA	Full quota

* Population estimates reported in the 2024 Quota Report have been used to set quota for 2025 for red kangaroos in these sub-regions.

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