



STATEMENT OF REASONS

for a decision under section 303FO(2) of the
ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

I, Tony Burke, Minister for Sustainability, Environment, Water, Population and Communities, provide the following statement of reasons for my decision of 15 December 2011 under section 303FO(2) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), to declare the 'New South Wales Commercial Kangaroo Harvest Management Plan 2012–2016' an approved wildlife trade management plan.

BACKGROUND

1. On 27 July 2011, the Office of Environment and Heritage (NSW) made an application to the Department of Sustainability, Environment, Water, Population and Communities (the Department) for the New South Wales Commercial Kangaroo Harvest Management Plan 2012–2016 (the Management Plan) to be declared as an approved wildlife trade management plan for the purposes of the EPBC Act.
2. In accordance with section 303FQ of the EPBC Act, the Department, on my behalf, consulted with the Office of Environment and Heritage (NSW) as the relevant agency of the State affected by the declaration, during the development of the Management Plan and at the conclusion of the public comment period. In addition, the relevant wildlife management agencies of all other Australian states and territories were invited to comment on the draft Management Plan. No comments were received from the other states or territories.
3. In accordance with section 303FR of the EPBC Act, a notice inviting public comment, including a link to the draft Management Plan, was placed on the Department's website on 1 August 2011. The public comment period closed on 29 August 2011. Nineteen submissions were received, five received by the Department and 15 received by the Office of Environment and Heritage (NSW), one of which was identical to a submission received by the Department. In addition to the submissions, the Office of Environment and Heritage (NSW) also received a petition to reintroduce kangaroo skin licenses (signed by 83 citizens).
4. The comments received addressed a range of issues including:
 - General comments on wildlife harvesting;
 - Sustainability of harvest, setting of quotas and allocation of tags;
 - Restrictions on the harvest of wallaroos;
 - Reintroduction of skin only shooting;
 - Training of shooters, licensing and compliance;
 - Animal welfare; and
 - Community education.
5. The Office of Environment and Heritage (NSW) reviewed the comments and incorporated changes into the Management Plan as appropriate.
6. On 15 December 2011, I decided to declare that the Management Plan was an approved wildlife trade management plan under subsection 303FO(2) of the EPBC Act. The instrument setting out my declaration was published in the Government Notices Gazette on 21 December 2011.
7. All sections below relate to the EPBC Act unless otherwise stated.

EVIDENCE OR OTHER MATERIAL ON WHICH MY FINDINGS WERE BASED

8. My findings were based on:

A brief dated 23 November 2011 from the Department:

a) which included the following attachments:

- the New South Wales Commercial Kangaroo Harvest Management Plan 2012–2016;
- background to the Commercial Harvest of Kangaroos and Wallabies;
- an assessment of the New South Wales Commercial Kangaroo Harvest Management Plan 2012–2016 against the requirements of the EPBC Act and Regulations; and
- copies of the original public comments received by the Department and the Office of Environment and Heritage (NSW) and a review of those comments. The review included a summary of the issues raised in the comments and how these issues were addressed by the Office of Environment and Heritage (NSW), including identifying where changes had been incorporated into the Management Plan as a result of the comments.

b) which referred to, or provided a summary of, the following:

- i. a report prepared for the Office of Environment and Heritage entitled *Review of scientific literature relevant to the commercial harvest management of kangaroos* (Herbert, C.A., Elzer, A.); and
- ii. the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes, First Edition, 7th November 2008.

LEGISLATION

9. Section 303BA of the EPBC Act provides that:

(1) The objects of this Part are as follows:

- (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention;
- (b) to protect wildlife that may be adversely affected by trade;
- (c) to promote the conservation of biodiversity in Australia and other countries;
- (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;
- (e) to promote the humane treatment of wildlife;
- (f) to ensure ethical conduct during any research associated with the utilisation of wildlife;
- [(g) *there is no subsection (g)*]
- (h) to ensure that the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

Note: CITES means the Convention on International Trade in Endangered Species—see section 528.

10. Section 303FO provides that:

- (1) The export of a specimen is an export in accordance with an approved wildlife trade management plan if the specimen is, or is derived from, a specimen that was taken in accordance with a plan declared by a declaration in force under subsection (2) to be an approved wildlife trade management plan.
- (2) The Minister may, by instrument published in the Gazette, declare that a specified plan is an *approved wildlife trade management plan* for the purposes of this section.
- (3) The Minister must not declare a plan under subsection (2) unless the Minister is satisfied that:
 - (a) the plan is consistent with the objects of this Part; and
 - (b) there has been an assessment of the environmental impact of the activities covered by the plan, including (but not limited to) an assessment of:
 - (i) the status of the species to which the plan relates in the wild; and

- (ii) the extent of the habitat of the species to which the plan relates; and
- (iii) the threats to the species to which the plan relates; and
- (iv) the impacts of the activities covered by the plan on the habitat or relevant ecosystems; and
- (c) the plan includes management controls directed towards ensuring that the impacts of the activities covered by the plan on:
 - (i) a taxon to which the plan relates; and
 - (ii) any taxa that may be affected by activities covered by the plan; and
 - (iii) any relevant ecosystem (for example, impacts on habitat or biodiversity); are ecologically sustainable; and
- (d) the activities covered by the plan will not be detrimental to:
 - (i) the survival of a taxon to which the plan relates; or
 - (ii) the conservation status of a taxon to which the plan relates; or
 - (iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and
- (e) the plan includes measures:
 - (i) to mitigate and/or minimise the environmental impact of the activities covered by the plan; and
 - (ii) to monitor the environmental impact of the activities covered by the plan; and
 - (iii) to respond to changes in the environmental impact of the activities covered by the plan; and
- (f) if the plan relates to the taking of live specimens that belong to a taxon specified in the regulations—the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and
- (g) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.
- (4) In deciding whether to declare a plan under subsection (2), the Minister must have regard to:
 - (a) whether legislation relating to the protection, conservation or management of the specimens to which the plan relates is in force in the State or Territory concerned; and
 - (b) whether the legislation applies throughout the State or Territory concerned; and
 - (c) whether, in the opinion of the Minister, the legislation is effective.

....

11. Section 303FQ provides that:

Before making a declaration under section 303FO or 303FP, the Minister must consult a relevant agency of each State and self-governing Territory affected by the declaration.

12. Section 303FR provides that:

(1) Before making a declaration under section 303FN, 303FO or 303FP, the Minister must cause to be published on the internet a notice:

- (a) setting out the proposal to make the declaration; and
- (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and
- (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.

(2) A period specified in a notice under subsection (1) must not be shorter than 20 business days after the date on which the notice was published on the internet.

(3) In making a decision about whether to make a declaration under section 303FN, 303FO or 303FP, the Minister must consider any comments about the proposal to make the declaration that were given in response to an invitation under subsection (1).

13. Regulation 9A.05 of the Environment Protection and Biodiversity Conservation Regulations 2000 (the EPBC Regulations) relevantly provides:

(1) This regulation sets out conditions for the following paragraphs of the Act:

...

(e) 303FO(3)(f).

(2) This regulation applies to a live animal of a species in the following classes:

(a) Mammalia (mammals);

....

(4) For paragraphs 303FN (3) (c) and 303FO (3) (f) of the Act, the conditions are as follows:

(a) the animal is taken, transported and held in a way that is known to result in minimal stress and risk of injury to the animal;

(b) if the animal is killed, it is done in a way that is generally accepted to minimise pain and suffering.

Note 1 Department of the Environment, Water, Heritage and the Arts, *National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes*, 2008, first edition, and *National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Non-commercial Purposes*, 2008, first edition, apply to the shooting of an animal of a species in the Macropodidae family.

FINDINGS ON MATERIAL QUESTIONS OF FACTS

14. In considering whether or not to declare a Management Plan to be an approved plan, I had to be satisfied that the Management Plan met all of the relevant criteria in section 303FO of the EPBC Act and that the conditions in regulation 9A.05 of the EPBC Regulations are likely to be complied with.

Consistency with the objects of Part 13A of the Act [section 303FO(3)(a)]

15. The objects of Part 13A are specified in section 303BA(1) of the EPBC Act and each object was considered as discussed below.

(a) Complies with obligations under CITES and the Biodiversity Convention

16. I noted that none of the species subject to the Management Plan are listed under the Convention on International Trade in Endangered Species (CITES).
17. I noted that ecological sustainability is a primary aim of the Management Plan. On that basis, I found that the Management Plan is consistent with the aims of the Biodiversity Convention because the harvest is undertaken in a manner that will not negatively impact on biological diversity and the harvest is undertaken in a manner that is ecologically sustainable. The ecological sustainability of the activities undertaken under the Management Plan is promoted via regular monitoring, the setting of harvest quotas at sustainable levels, and effective monitoring of take and of people involved in the industry (e.g. through permit and tag procedures). I refer to my findings and conclusions in paragraphs 48 to 63 below.
18. In light of my findings at paragraphs 16 to 17 above, I concluded that the Management Plan is consistent with this object.

(b) Protects wildlife that may be adversely affected by trade

19. I noted that all kangaroo species covered by this Management Plan are listed as common in New South Wales, and found there is sufficient regulation to ensure that trade will not adversely affect the species. In particular, there are permit and tag procedures in place to ensure that the commercial harvest of kangaroos is effectively regulated and enforced, and therefore the species concerned will not be adversely affected by trade. For example, there is a compliance program (investigations, checks, inspections, returns) in place to ensure that the potential illegal take of kangaroos can be detected. I refer to my findings and conclusions in paragraphs 48 to 63 below.
20. I was concerned that the Management Plan included provision for commercial harvesting of euros (*Macropus robustus erubescens*) if direct population monitoring was implemented but did not specify the survey methodology to be used. I wanted to ensure that any survey methodology used was appropriate for the species and terrain and therefore included a condition on the declaration that required the Office of

Environment and Heritage (NSW) to seek the Department's approval of the survey methodology before allowing commercial harvest of euros. I refer to my findings and conclusions in paragraphs 78 and 83.

21. In light of my findings at paragraphs 19 to 20 above, I concluded that the Management Plan (with the added condition as outlined in paragraph 20 above) is consistent with this object.

(c) Promotes the conservation of biodiversity

22. I found that the harvest is set at a level that is sustainable and will not impact on the conservation status of kangaroos. I refer to my findings and conclusions in paragraphs 48 to 63 below.
23. I found that reducing the grazing impact of these species is likely to lead to the improved conservation of biodiversity in New South Wales. No vegetation is likely to be cleared or modified as a consequence of the commercial harvest. I refer to my findings in paragraph 46.
24. In light of my findings at paragraphs 22 and 23 above, I concluded that the Management Plan is consistent with this object.

(d) Ensures commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way

25. I found that the commercial harvest of kangaroos in New South Wales is conducted in an ecologically sustainable way by setting commercial harvesting quotas at levels considered by macropod population ecologists and the state agencies responsible for kangaroo management as sustainable for kangaroo populations. These quotas are based on direct, in most cases annual, monitoring of kangaroo populations.
26. I found that the Management Plan identifies management controls and performance measures that ensure harvest levels remain sustainable and maintain kangaroo populations. There are also management controls to ensure that the harvest does not have irreversible negative impacts on the sex or size structure of kangaroo populations. A system of permits and a compliance and enforcement regime is in place for all involved in the commercial industry, from landholders through to processors, to minimise the amount of illegal take or non-compliance with permit conditions. I refer to my findings and conclusions in paragraphs 48 to 63 below.
27. In light of my findings at paragraphs 25 and 26 above, I concluded that the Management Plan is consistent with this object.

(e) Promote the humane treatment of wildlife

28. I noted that an aim of the Management Plan is dedicated to animal welfare (Aim 2: Ensure humane treatment of kangaroos).
29. I noted that the Management Plan requires commercial shooters to comply with the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes (the Commercial Code) or any subsequent relevant nationally-endorsed code that replaces that document. The Commercial Code sets an achievable standard of humane conduct and is the minimum required of persons shooting kangaroos and wallabies.
30. I noted that adherence to the Commercial Code is an enforceable condition on a New South Wales commercial shooter's licence.
31. I refer to my findings and conclusions in paragraphs 84 to 90 below.
32. In light of my findings at paragraphs 28 to 31 above, I concluded that the Management Plan is consistent with this object.

(f) Ensure ethical conduct during any research associated with the utilisation of wildlife

33. I noted that the Management Plan deals with the commercial utilisation of kangaroos and most kangaroo research falls outside the scope of the Management Plan. However, the Management Plan does refer to research that relates to the commercial harvest. Action 16 of the Management Plan states that where practical, experiments may be performed to test deliberate management interventions during the life of the Management Plan.
34. I noted that an example of this type of experiment would be harvesting kangaroos at a rate higher than allowed under the normal quota in order to cause a decrease in the population; and then measuring the effect of the decreased population on the habitat and other species.
35. I noted that the Management Plan requires the Office of Environment and Heritage (NSW) to seek departmental approval before undertaking an experiment that would result in a higher quota than that normally allowed under the Management Plan.

36. I noted that the Management Plan requires that all necessary approvals – including animal care and ethics – are obtained prior to commencement of experiments testing deliberate management interventions.
37. In light of my findings at paragraphs 33 to 36 above, I concluded that the Management Plan is consistent with this object.

(h) Ensure that the precautionary principle is taken into account

38. The precautionary principle (see subsection 391(2) of the EPBC Act) is:

“...that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.”
39. I found that the Management Plan contains a range of measures that require a precautionary approach to be taken when decisions are made in relation to the harvest of kangaroos. These measures (Aims 4, 5 and 6 of the Management Plan) include:
 - conducting regular (in most cases annual) monitoring prior to the setting of commercial quotas;
 - setting quotas at levels considered sustainable for kangaroo populations;
 - reducing quotas to 10 percent when the population size estimates are between 1.5 to 2 standard deviations below the long-term average; and
 - suspending quotas when the population size estimates are more than 2 standard deviations below the long-term average.
40. In light of my findings at paragraphs 38 and 39 above, I concluded that the Management Plan is consistent with this object.

Conclusion

41. In light of my findings and conclusions in paragraphs 16 to 40 above, I concluded that the Management Plan is consistent with the objects of Part 13A of the EPBC Act.

Assessment of the environmental impact of the activities covered by the plan [section 303FO(3)(b)]

42. The provision of an assessment and the aspects of the assessment that must be covered by the Management Plan are specified in section 303FO(3)(b) of the EPBC Act and each was considered as discussed below.
43. I noted that the Management Plan includes an assessment, for the species covered by the Management Plan, of the status of the species in the wild. I found that all species to which this Management Plan relates are common in New South Wales, and are not listed on New South Wales or Commonwealth threatened species schedules.
44. I noted that the Management Plan includes an assessment of the extent of the habitat of the species. The extent of the habitat is represented by the current distribution of each species which is discussed in section 3.2 of the Management Plan. The Management Plan includes distribution maps for each species.
45. I found that Table 2 of section 3.4 of the Management Plan includes a list of threats and an assessment of their likely impact. Table 2 also includes the scientific references used in making the assessments. The threats included: environmental impacts (particularly drought and flood), habitat loss and modification, disease, climate change, predation and harvesting (general and genetic impacts). The Management Plan describes the impact of climate change as being the most difficult to predict but likely to be negative. Impacts of climate change are likely to include changes to species' abundance, genetics and distribution; and also the impact on the individual kangaroo's fecundity, survival and behaviour. I considered that based on this information, none of these threats are operating at a sufficient level to impact on the conservation status of kangaroos.
46. I found that Table 3 of section 3.4 of the Management Plan includes an assessment of the impacts of the commercial harvest on kangaroo habitat and ecosystems. The assessment is based on knowledge and experience of the New South Wales State Government and/or scientific references. The Management Plan describes the impacts of the commercial harvest on habitat as more likely to be positive than negative, due to a reduction in kangaroo grazing impacts. Reduction of grazing pressure is likely to lead to vegetation recovery, and/or conservation of biodiversity, although the extent to which kangaroo grazing impacts on vegetation is yet to be clearly quantified. Other impacts to ecosystems are considered unlikely due to the position of kangaroos in the food chain, and the low numbers of natural predators (particularly dingoes) in the main harvest area. Further, the Management Plan outlines the potential

impacts on feral populations such as foxes, through the provision of offcuts left in the field as a food resource. Maintenance of artificially high predator populations may in turn threaten other prey populations, including endangered taxa. However, given that many harvesters presently bury harvest offcuts and that harvest offcuts are widely and randomly dispersed across the landscape, it is unlikely that the commercial kangaroo harvest will significantly increase populations of introduced predators.

Conclusion

47. In light of my findings at paragraphs 43 to 46 above, I concluded that the Management Plan included an assessment of the environmental impact of the activities covered by the plan with regard to the status of the species, the extent of the habitat of the species, the threats to the species and the impacts of the activities on the habitat or relevant ecosystems.

Management controls to ensure that the impacts of the activities are ecologically sustainable [section 303FO(3)(c)]

48. The provision of management controls and the impacts that must be covered in the Management Plan are specified in section 303FO(3)(c) of the EPBC Act and each was considered as discussed below.
49. I noted that the commercial harvesting of kangaroos is presently restricted to the commercial kangaroo management zones illustrated in Figure 1 of the Management Plan. However, within the life of this Management Plan new commercial kangaroo harvesting zones may be opened, in addition to those zones illustrated in the Management Plan following the completion of population surveys.
50. I found that the commercial harvest is controlled through the use of quotas. The commercial quotas represent an upper limit and are set at levels that are considered ecologically sustainable for kangaroo populations. Quotas are set on a regional basis and are based on a percentage of the population. Unless undertaken as part of an approved adaptive management experiment, commercial quotas will be set at a maximum of 15 per cent of the population estimate for eastern grey kangaroos, western grey kangaroos and wallaroos and 17 per cent of the population estimate for red kangaroos. Based on the population dynamics of the kangaroos, these quotas are considered sustainable in the long-term.
51. I found that the Management Plan includes the use of trigger points as an additional safeguard to ensure the long-term sustainability of the commercial harvest. Trigger points will be used to reduce or suspend the commercial harvest if kangaroo populations decline to a specific level.
52. I noted that the Management Plan calculates trigger points based on long-term average population estimates and uses standard deviations (i.e. a measure of population changes relative to its average) to take into account the natural fluctuations in kangaroo populations. If the population size estimates are between 1.5 to 2 standard deviations below the average, then the quota would be reduced to 10 per cent. If the population size estimates are below 2 standard deviations of the average, then harvesting is suspended.
53. I noted that the Management Plan includes provision for a special quota. Special quotas are set annually at a maximum of five per cent of the population of each species in any one zone. The sole purpose of the special quota is to provide for the commercial utilisation of kangaroos that would have otherwise been shot and left in the field under the normal non-commercial licensing system.
54. I found that the special quota can only be used when the commercial quota for a particular kangaroo management zone has been fully issued. The Office of Environment and Heritage (NSW) only uses this option if there is a damage mitigation problem (i.e. if the number of kangaroos on a property is causing too much grazing pressure). The decision on whether to use the special quota will be made by the Office of Environment and Heritage (NSW) following consultation with the New South Wales Kangaroo Management Advisory Panel and consideration of climatic trends and local conditions, Western Lands destocking orders, kangaroo population trends and whether the commercial quota for that species in that zone has not been reduced or suspended due to the population estimate being below the trigger points.
55. I found that, historically, special quotas have rarely been used. Although, special quotas were included in the previous Management Plan (2006-2011) they were never utilised.
56. I found that if within a zone the special quota is fully utilised then the total commercial harvest would be 20 per cent of the population estimate for eastern grey kangaroos, western grey kangaroos and wallaroos and 22 per cent of the population estimate for red kangaroos. These harvest rates are not considered sustainable in the long-term but would not be detrimental in the short-term. Harvests at this level would be "one-off" to deal with a specific damage mitigation problem.

57. I noted that special quota allocation and use of the special quota would be reported to the Department in the Quota Report and the Annual Report. Submission of the Annual Report is a condition of the declaration.
58. I noted that the Management Plan includes provision for undertaking adaptive management experiments. All proposals to undertake active adaptive management experiments will be reviewed by the New South Wales Kangaroo Management Advisory Panel and will be assessed by the Office of Environment and Heritage (NSW). If the adaptive management experiment involves harvesting over the quota specified in the Management Plan then the Office of Environment and Heritage (NSW) will seek approval from the Department prior to commencing the experiment.
59. I noted that kangaroo harvesters are licensed and issued with sequentially numbered lockable tags which must be attached to the kangaroo carcass before it is removed from the property. The tags enable accurate harvest monitoring.
60. I noted that kangaroo harvesters and processors are required to submit monthly returns. These returns will be audited and cross checked to monitor industry compliance with the Management Plan.
61. I noted that the Office of Environment and Heritage (NSW) staff undertakes regular and opportunistic inspections of carcasses and processors. Reports of unlicensed activities or activities in breach of licence conditions will be investigated and appropriate action taken.
62. I found that the impact of the harvest on other species and the ecosystem is likely to be negligible to positive as long as it is undertaken in accordance with the Management Plan. I refer to my findings in paragraph 46.

Conclusion

63. In light of my findings in paragraphs 49 to 62 above, I concluded that the Management Plan included effective control measures that are directed towards ensuring that quotas are set sustainably and are not exceeded thus ensuring the impact on the harvested species, other species or the relevant ecosystem are ecologically sustainable.

Activities will not be detrimental to the survival or conservation status of the species to which the Management Plan relates; or any relevant ecosystem [section 303FO(3)(d)]

64. I found that the activities covered by the Management Plan will not be detrimental to the survival or the conservation status of the taxon to which the plan relates. The overarching goal of the Management Plan is to maintain viable populations of kangaroos throughout their ranges in accordance with the principles of ecologically sustainable development. The plan aims to ensure that the activities it covers are not detrimental to the survival or conservation status of kangaroos.
65. I found that commercial quotas are set at a sustainable level and the harvest will not be detrimental. For further details on the setting of quotas I refer to my findings in paragraphs 49 to 63.
66. I noted that the impacts of the harvest and other causes of mortality (e.g. road kill, disease) are determined regularly through direct monitoring (in most cases done on an annual basis) of kangaroo populations. Results of direct monitoring are used as a basis for setting future quotas. For further details on direct monitoring I refer to my findings in paragraphs 73 to 79.
67. I noted that as an added precaution harvest returns are collected and analysed to identify significant changes in the average weights of harvested kangaroos. Carcass weights can provide an indication of population health as harvesters generally target the larger animals and a significant decrease in average carcass weights could indicate a population under stress. Analysis of this data can pick up potential changes earlier than the population surveys and can ensure that appropriate action is taken on a timely basis. For details on the actions to be taken in the event of a significant change refer to paragraphs 80 to 82.
68. I noted that the genetic impacts of harvest have been assessed in Table 2 of the Management Plan, and are not considered likely due to the size and extent of the harvest in New South Wales compared to the size and extent of kangaroo populations. My Department's advice (Attachment C of the Brief) referred to a report prepared for the Office of the Environment and Heritage (NSW) entitled Review of scientific literature relevant to the commercial harvest management of kangaroos. This report reviewed current scientific knowledge and found no evidence, or potential, that commercial harvesting will alter the genetic structure of kangaroo populations at the current harvesting levels.

69. I found that there were adequate controls to ensure that illegal take and non-compliance with permit conditions is minimised through the presence of permit and tag procedures for the industry, and the presence of a compliance program to enforce the Management Plan.
70. I found that potential negative impacts to habitat or ecosystems are unlikely. I refer to my findings and conclusions in paragraphs 43 to 47.

Conclusion

71. In light of my findings in paragraphs 64 to 70 above, I concluded that the activities covered under the Management Plan will not be detrimental to the survival or conservation status of the species or the ecosystems in which they are undertaken. Potential negative impacts to habitat or ecosystems are considered unlikely and have been considered in the discussion under paragraphs 43 and 47 and also in Table 3 of the Management Plan.

The plan includes measures to mitigate and/or minimise, monitor and respond to changes in the environmental impact of the activities [section 303FO(3)(e)]

Measures to mitigate and/or minimise environmental impact

72. I found that the Management Plan contains measures to mitigate and minimise the environmental impact of the activities covered by the Management Plan. I refer to my findings and conclusions at paragraphs 48 to 63.

Measures to monitor environmental impact

73. I noted that Aim 4 of the Management Plan addresses the requirement to monitor the environmental impact of the activities through a program of direct and indirect monitoring of the commercial harvest.
74. I noted that broad-scale aerial surveys using fixed-wing aircraft (fixed strip-width transect survey methodology) are used to obtain annual population estimates in the western areas of the commercial zone.
75. I noted that medium/small-scale surveys using a helicopter (line transect survey methodology) are used primarily in areas not suitable for fixed-wing surveys, e.g. South East New South Wales, Northern Tablelands and Central Tablelands. Surveys will be conducted at a frequency of at least once every three years while a commercial quota is in force.
76. I noted that small-scale surveys conducted on foot (line transect survey methodologies) are rarely employed in this context due to the high associated costs.
77. I noted that, should they be required, ground surveys undertaken by foot will be conducted to verify the ratio of eastern grey kangaroos to western grey kangaroos in areas where both species occur.
78. I noted that euros (*Macropus robustus erubescens*) are not currently being commercially harvested and a commercial harvest cannot occur without a quota being set. The Management Plan states that a quota can only be set after direct monitoring of this population in the Barrier Ranges District, however the Management Plan does not specify whether the survey will be conducted by fixed wing aircraft, helicopter or by foot.
79. I noted that kangaroo populations will continually be monitored indirectly throughout the life of the Management Plan. Ongoing monitoring of licence returns will identify significant changes in the average weights of harvested kangaroos, which, for example, can provide an indication of population health. The ratio of males to females harvested is also monitored.

Measures to respond to changes in environmental impact

80. I found that the Management Plan is able to respond to changes in the environmental impact of the activities covered by the Management Plan.
81. I noted that quotas are set as a percentage of the population and will change when the population changes. The special quota enables the Office of Environment and Heritage (NSW) to respond to specific damage mitigation needs of the landholder. For further details on the setting of quotas I refer to my findings and conclusions in paragraphs 48 to 63.
82. I found that ongoing monitoring of licence returns will identify significant changes in the average weights of harvested kangaroos, which can provide an indication of population health. If average weights for any species (male and female separately) fall below the long-term average (at least the last ten years) by more than one standard deviation for any three successive months, the Office of Environment and

Heritage (NSW) will undertake investigations to determine, where practical, the cause of the change. If necessary, management action will be taken to ensure the sustainability of the kangaroo population. Actions may include reducing or suspending the commercial harvest for that species in that zone, or increasing survey intensity at next survey.

Conclusion

83. In light of my findings at paragraphs 72 to 82 above, I concluded that the Management Plan includes measures to mitigate and monitor impact and to respond to changes in environmental impact. However, I was concerned that the Management Plan did not specify the monitoring method that would be used to assess euro populations in the Barrier Ranges District (see paragraph 78). In order to ensure that the survey method used was appropriate for the species and the terrain, I placed a condition on the declaration requiring the Office of Environment and Heritage (NSW) to seek the Department's approval of the survey methodology before setting a quota for the euro (see paragraph 107).

Animal welfare [section 303FO(3)(f) and regulation 9A.05(4)]

84. Regulation 9A.05(4)(b) of the Regulations provides an additional condition, that if an animal is killed, it is done in a way that is generally accepted to minimise pain and suffering.
85. I noted that section 2.2 of the Management Plan describes the licensing framework of the Office of Environment and Heritage (NSW), and Aims 2 and 3 detail animal welfare and compliance requirements. Compliance with the Commercial Code or any subsequent codes is a licence condition for kangaroo harvesters in New South Wales. The Commercial Code requires that kangaroos be killed with a shot to the brain and fauna dealers are prohibited as a condition of their licence to purchase a carcass that has a bullet wound in the body. This requirement is reiterated in the Management Plan (section 2.2 of the Management Plan).
86. I considered that the Commercial Code was developed after a long process of consultation involving state, territory and Australian Government environmental agencies, animal welfare groups, industry, the scientific community and the public, and sets out an achievable standard of animal welfare. The Commercial Code is referred to in a Note to regulation 9A.05 as being applicable to the shooting of kangaroos.
87. I noted that all commercial shooters must have successfully completed the firearms accreditation provided through the New South Wales Firearms Safety and Training Council. Accreditation includes passing a shooting accuracy test. If the harvester has not previously done so, they must successfully complete the New South Wales TAFE course 5725 – Australian Game Meat Hygiene and Handling within three months of being licensed.
88. On the basis of the above evidence, I found that commercial kangaroo harvesters are skilled and it is in their interest to ensure that the kangaroos are quickly and humanely shot.
89. I noted that the Management Plan specifies that processors are prohibited from buying carcasses that have been body shot (see paragraph 84) and that their premises are periodically inspected to check for body shot carcasses. Each carcass is tagged. The tags are sequentially numbered and enable the Office of Environment and Heritage (NSW) to track a carcass back to the individual shooter. Breaches of licence conditions relating to animal welfare may result in the issuing of a Penalty Infringement Notice or prosecution under New South Wales law.

Conclusion

90. In light of my findings at paragraphs 84 to 89 above, I concluded that kangaroos killed in accordance with the conditions set out in the Management Plan would be killed in a way that is generally accepted to minimise pain and suffering and therefore meet the requirements of regulation 9A.05(4) and section 303FO(3)(f).

Effective State legislation [section 303FO(4)]

91. In deciding whether to declare the Management Plan, I also had regard to whether State legislation relating to the protection, conservation or management of the specimens to which the plan related is in force, applies and is effective.
92. I noted that all kangaroo species and subspecies are 'protected fauna' in New South Wales under the *National Parks and Wildlife Act 1974* (NSW). The *National Parks and Wildlife Act 1974* and the

National Parks and Wildlife Regulation 2009 (NSW) make provisions for the licensing of a range of activities relating to the commercial harvesting of kangaroos in New South Wales. These licensing arrangements will apply to the activities under the Management Plan.

93. In light of my findings at paragraphs 91 and 92 above, I was satisfied that the State legislation is effective in protecting, conserving and managing kangaroo populations in New South Wales.

Consultation with State and Territory agencies [section 303FO]

94. Before making a declaration, consultation must occur with the relevant State agency affected by the declaration.
95. I noted that the Department liaised with the Office of Environment and Heritage (NSW) during the development of the draft Management Plan and following the public comment during the development of a final plan. The Department also consulted with them about including a condition on the declaration requiring departmental approval of the survey methodology for surveying euros in the Barrier Ranges (see paragraphs 78 and 107).
96. I noted that the relevant agencies of the State and Territory governments of Queensland, Victoria, South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory were also notified that the Management Plan was out for public comment and were invited to provide comment. None of them provided any comments.
97. In light of my findings at paragraphs 95 and 96, I was satisfied that a relevant agency of each State and self-governing Territory affected by the declaration were consulted.

Public consultation [section 303FR]

98. Before making a declaration, public consultation through a notice published on the internet must also occur.
99. I noted that on 1 August 2011, the Department published a notice on the internet:
- a) setting out the proposal to make the declaration; and
 - b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and
 - c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.
100. I noted that the Department undertook public consultation on the draft Management Plan concurrently with a public consultation period undertaken by the Office of Environment and Heritage (NSW). The Department received five submissions which it provided to the Office of Environment and Heritage (NSW) for its consideration. The Office of Environment and Heritage (NSW) received 15 submissions, one of which was identical to one provided to the Department.
101. I noted that the Office of Environment and Heritage (NSW) reviewed all submissions including those received by the Department and incorporated changes into the Management Plan as appropriate.
102. I noted that of the 19 submissions received, six were in support of the industry, 11 were opposed to the industry and two opposed sustainable use of wildlife but supported the industry as the preferred option for addressing landholder's damage mitigation requirements.
103. I noted that the Department provided the notice referred to in paragraph 98 for the period 1 to 29 August 2011, a period of 20 business days.
104. In light of my findings at paragraphs 99 to 103, I was satisfied that the draft Management Plan was published for public comment with sufficient notice, information and invitation to allow the public to make informed comments on the plan.
105. A summary of the comments received and the Department's responses to them were presented to me, along with a copy of the Office of Environment and Heritage's report summarising the issues raised and how they were addressed. I considered all comments about the proposal, including those received by the Office of Environment and Heritage (NSW), prior to making my decision. Some comments were outside the scope of the Management Plan and/or did not address the matters that I am required to consider and be satisfied of under the EPBC Act.

106. In light of my findings at paragraph 105, I was satisfied that the public was adequately consulted and that the draft Management Plan was appropriately amended in light of those comments.

REASONS FOR DECISION

107. I decided to declare that the Management Plan be an approved wildlife trade management plan with conditions because:
- In light of my conclusions in paragraphs 18, 21, 24, 27, 32, 37, 40, 41, 47, 63, 71, 83 and 90 above, I was satisfied that the Management Plan met the criteria listed in section 303FO(3) of the EPBC Act; and
 - I was concerned with the lack of certainty over the type of survey that would be used if the Office of Environment and Heritage (NSW) decided to commercially harvest euros in the Barrier Ranges (see paragraph 83); and
 - In order to address this concern, the declaration was made subject to the inclusion of a condition requiring the Office of Environment and Heritage (NSW) to demonstrate that the survey methods used for the euro can provide reliable estimates of population size and to seek the Department's approval of the survey methodology before setting a quota for the euro; and
 - Taking into account all of my findings and conclusions set out above, I was satisfied that declaring the Management Plan to be an approved wildlife trade management plan with the added condition was the correct and preferable decision.



Tony Burke

Minister for Sustainability, Environment, Water, Population and Communities

11/3/2012