

# The kangaroo population at the Belconnen Naval Transmitting Station

A preliminary proposal to the Department of Defence  
for **non-lethal interventions** consistent with a  
whole-of-ecosystem environmental plan

## Summary, July 2007

Presented by Wildcare Inc.

### About Wildcare Inc.

Wildcare is a non-profit organisation of approximately 250 volunteer members, licensed by the National Parks and Wildlife Service of NSW to:

- rescue and rehabilitate sick, injured and orphaned native animals (mammals, reptiles, raptors and other birds)
- release healthy animals back into the wild
- engage in public education activities, including those relating to human-wildlife interaction in urban and rural environments
- provide training in wildlife handling and husbandry across all native animal species, including aquatic (non-marine).

As an animal welfare organisation, Wildcare also advocates against the inhumane treatment of native animals and encourages, through education, training and practical demonstration, an ethical whole-of-environment approach to the native animals that are a vital part of Australia's landscape.

Wildcare assists a large cross-section of species as it carries out its work in the community. The vast majority of the animals that Wildcare deals with on a daily basis are eastern grey kangaroos

### Background

- The Belconnen Naval Transmitter Station (BNTS) is an enclosed area of some 116 ha within a larger area of 136.8 ha currently under the control of the Department of Defence. Eastern grey kangaroo population numbers on the BNTS had been projected by HLA-Envirosciences (HLA) to reach 584 by March 2007.

- Kangaroo numbers have not reached the projected figure – the current population is reported to be 505.
- The HLA *Interim Kangaroo Management Strategy* advised that there was an imminent risk that the population of kangaroos at the site would exceed available food supplies, and that will lead to starvation and concerns over the welfare of the animals. HLA estimated it would be necessary to destroy 80% of the estimated population of kangaroos at the BNTS, with the remainder kept for a fertility trial.
- There has been an adverse public reaction to the proposed destruction of eastern grey kangaroos, both throughout Australia and internationally.
- The present challenge confronting the Department of Defence provides an opportunity to develop an intelligent, sustainable programme of whole of ecosystem environmental management on the BNTS (highest priority) and Majura sites, with lessons captured in a way that would enable the roll-out of similarly innovative strategies across multiple Defence sites.
- A site visit undertaken on 04 June 2007 to observe the captive EGK population at the BNTS was made by a group of five Wildcare members with a combined experience base of more than 50 years of rescuing, translocating, rehabilitating and raising juvenile and adult EGKs. The mob had very few joeys at foot, and seemed to be comprised of many more aged adult males than would normally be found. Based on the musculature of the males, many of the animals were older than seven years. This may suggest that self-limiting factors are coming into play within the mob structure at BNTS and the population may well be on the decline.

### ***Three-Phase Action Plan***

Wildcare proposes a three-phase whole of ecosystem action plan for the BNTS with potential team members that range from academics, veterinarians, NPWS personnel and experienced wildlife handlers. A summary of the phases are provided below:

#### **Phase 1 Immediate**

- Conduct an eastern grey kangaroo population census at the site (to capture numbers by gender and age) and assess the health of the population.
- Identify short and longer term actions to assist threatened and endangered species.
- Determine sustainable eastern grey kangaroo numbers for the site.

#### **Phase 2 Medium-term**

- Based on assessment of a sustainable eastern grey kangaroo population profile, determine and implement an appropriate mix of relocation and reproductive interventions.

The translocation of significant numbers of EGKs is not without risk, and would have to be handled with care and attention to detail. It could not be done overnight. It would involve significant resources and would attract widespread public interest. However, there are precedents to provide grounds for considering that a successful translocation can be undertaken.

Wildcare's proposal provides details of a translocation methodology proposed by a highly-regarded wildlife spotter/catcher who has experience in the translocation of eastern grey kangaroos and wallabies. Key points of that methodology include:

- A period of time to monitor, record and assess all animals is required after identifying areas to be fenced to facilitate safe capture.
- Establish large capture areas, where the animals will naturally move of their own accord and supplementary food is placed to entice movement into these areas.
- Establish monitoring stations and install associated monitoring equipment.
- Provide smaller enclosed capture pens that act as a funnelling area in which animals can be contained for screened, discrete darting.
- Select family groups/young males ready for dispersal, darting with a drug that lasts for four hours.
- Establish mobile vet stations outside the enclosed capture pens where animals are assessed, tagged, recorded and moved to waiting transport.
- Transport animals to pre-established release areas where very large pens have been constructed.
- 'Settle' the animals in their release site pens for a period of up to twelve weeks. This period of time allows the animals to get to know the smells and sounds of their new area and to break site fidelity to their previous home range.

### **Phase 3. Long-term**

- Implement longer-term ecosystem monitoring and regular counting of the captive eastern grey kangaroo population.
- Commission research and monitoring of any translocated population by a reputable research organisation or university.
- Develop a whole-of-ecosystem management plan.
- Establish an expert Advisory Panel.

## **Key Issues**

### **1. Animal Welfare Concerns**

The role and involvement of the RSPCA in this plan is recognised and it would be important that the RSPCA's six guiding animal welfare principles are applied:

- a. Justification for control
- b. Lethal or non-lethal control
- c. Probability of success
- d. Coordinated and strategic approach
- e. Target specificity, and
- f. Humaneness

These principles overlay with Wildcare's approach.

A precautionary approach is warranted but we believe there is no justification for killing a healthy animal if there are other ways of achieving a reduction in grazing pressure.

## ***2. Population Considerations***

In order to make accurate population projections it is essential to have sound estimates of present population numbers by age and sex; fertility rates; and mortality rates for all age cohorts. The review of population numbers at the BNTS made assumptions about fertility rates and assumed zero mortality. No data on the demographic composition of the present population was included. A trend of growth was determined but there are factors that may need to be considered as part of that trend including, for example, whether the current observed numbers are a prevalent circumstance that will dictate future change in numbers; a relic of past determinants that once created growth, but are now being superseded by other circumstances; or a portent of some future very different outcome? Such knowledge is necessary before any population intervention is carried out, in order to ensure that there are no deleterious results.

In short, the full range of endogenous or exogenous determinants of population profile need to be included in a population census, not just a count

## ***3. The Effects of Kangaroo Grazing***

There is not a high level of understanding of the ecological impact of kangaroo grazing and Ramp and Coulson (2002), make it very clear that there is insufficient knowledge about the impact of kangaroo grazing on native ecosystems to draw such strong conclusions: 'There is no question that kangaroos eat, but unfortunately many studies on grazing impacts prove only this....It is essential to think of the grazing "problem" as fluctuating both spatially and temporally: it is not as simple as thinking that "kangaroos" plus "remnant vegetation" equals "management problem"<sup>1</sup>.

---

<sup>1</sup> Ramp (2005), p. 212.

### **3. Endangered Fauna and Flora**

#### **Golden Sun Moth (*Synemon plana*)**

- Known threats to the Golden Sun Moth include continued loss and fragmentation of its grassland habitat due to agricultural, urban and industrial development, and degradation of its habitat through changed grazing intensity, pasture improvement, weed invasion, changed fire regimes and the impact of stock.
- Grazing by eastern grey kangaroos is not listed as a threat to the habitat of the Golden Sun Moth.
- The Wallaby Grass (*Austraodanthonia*) which is understood to be a habitat for *S.plana* is a perennial grass that will be benefiting from recent rainfalls.

#### **Gininderra Peppercross (*Lepidium ginninderrense*)**

- Management experience suggests that the species is susceptible to overgrazing and competition from other plant species.
- It is clear from the length of the stand of Gininderra Peppercross at the BNTS site that this species is unpalatable to kangaroos.

**The Grassland Earless Dragon (*Tympanocryptis pinguicolla*) and Striped Legless Lizard (*Delma impar*) are of relevance for the Majura site rather than the BNTS and so are not discussed in any detail in the preliminary proposal.**

### **4. Translocation Issues/Risks**

The translocation of significant numbers of eastern grey kangaroos is not without risk, and would have to be handled with care and attention to detail.

There are, however precedents for considering that a successful translocation can be undertaken. Some of those who have had responsibility for other eastern grey kangaroo relocations have offered to assist with any translocation from the BNTS.

Translocation is dependent on the skills of 'spotters/ catchers', veterinarians, availability of appropriate medication for sedation/ stress reduction, EGK handlers, supplies of necessary equipment and the construction of appropriate release site enclosures. Appropriate animal welfare considerations need to be addressed as part of a translocation strategy.

Wildcare is able to bring together a team of experts which includes specialist veterinarians and others with previous practical experience in EGK translocation.

Techniques learnt by Wildcare handlers will be applied to minimise the risk of capture myopathy occurring, including employing measures such as the use of shadecloth on fenced areas, and the administration of preventative medications (Modecate and Vitamin E/Selenium injections).

## **5. *Successfully Releasing after Translocation***

There are two main methods of releasing native animals to the wild or, in the case of translocation, releasing into a new area. Wildcare uses the term 'hard' or 'soft' release to describe the two possible methods.

'Hard' release involves releasing awakened sedated animals/s into a completely open wild area with no containment measures. The animal is then free to 'get away' in whichever direction it instinctively heads. This is the method which has been used in the past and has had a low success rate. The low success rate appears to be because of two factors: the first is that the animals try to return to their home range and the second because of predation due to unfamiliarity of the territory.

'Soft' release is a method whereby appropriate containment is established and over a planned period of time the animals/s are slowly accustomed to the new site, becoming familiar with its smells, ambient sounds, soil, grasses, and with other wildlife (or even feral species). Wildcare uses soft release for almost all its released animals and has proved this to be a successful method of reintegration.

## **6. *Approvals Required***

Translocation of eastern grey kangaroos would require the approval of the ACT Government, and the issuing of 'export permits'. Contact with the NSW Department of Environment and Climate Change has indicated that approval would be provided for the movement of the animals to NSW and NPWS staff could be offered to assist with the translocation.

## **Conclusion**

Wildcare agrees with the RSPCA that there is a need "to go beyond the instinctive reactions and develop rational and considered responses to the imbalances in the natural ecosystems that we are faced with".<sup>2</sup>

Wildcare's three-stage action plan is aimed at a whole of ecosystem approach. It comprises a multi-dimensional, carefully considered strategy developed in consultation with relevant organisations and experts in the various fields and provides a feasible solution to the issues confronting Defence.

---

<sup>2</sup> B. Jones, "Integrating Animal Welfare into Vertebrate Pest Management" 2003 RSPCA Australia Scientific Seminar, p7