

BETWEEN: **CAROL JEANETTE BOOTH**

Applicant

AND: **FRIPPERY PTY LTD (ACN 010 890 007)**

First Respondent

MERVYN MEYER THOMAS

Second Respondent

PAMELA ANN THOMAS

Third Respondent

AFFIDAVIT

Filed on: 21 December 2004

Filed by: Environmental Defenders Office (Qld) Inc
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I, **Dr Carol Jeanette Booth**, student and research assistant, of 32 Forbes Street, West End in the State of Queensland being under affirmation, say:

Reasons for bringing this application

1. With this application I act in the public interest to promote the objects of the *Nature Conservation Act 1992* and seek to prevent further illegal electrocution and shooting of flying foxes by the respondents. I have no financial interest in the outcome of the proceedings.
2. As explained below in my affidavit, in 2003 I complained to the Queensland Parks and Wildlife Service (“**QPWS**”) about illegal killing of flying foxes by the respondents in 2003. The QPWS did not enforce the *Nature Conservation Act 1992* against the respondents. I therefore consider it necessary to apply under section 173D of the

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Deponent

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Justice of the Peace / Solicitor

AFFIDAVIT OF CAROL
JEANETTE BOOTH
Filed on behalf of the Applicant
PEC-5

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Nature Conservation Act 1992 to ask the Planning and Environment Court to restrain further the offences by the respondents against the Act.

Personal details and relevant qualifications

3. I was born 14 March 1963 in Chinchilla, Queensland. I hold a PhD in biological science, a graduate diploma in journalism, and a graduate diploma and honours degree in philosophy. I am currently doing a PhD in environmental philosophy at the University of Queensland and work part-time as a Research Assistant at the University.
4. I have been heavily involved with the conservation movement in Queensland for many years. Since 1996 I have worked in a variety of positions for the conservation movement in Queensland, including as Chair of the Queensland Conservation Council Inc and Coordinator (i.e. chief executive officer) of the North Queensland Conservation Council Inc, which are the leading non-government conservation organisations in Queensland and North Queensland respectively. I currently do voluntary conservation work for the Queensland Conservation Council Inc with a focus on biodiversity conservation. Annexed to this affidavit and marked “CJB-1” is a true and correct copy of my resume.

Experience with flying foxes and capacity to identify Black Flying Foxes

5. Since 1994, I have cared for young flying foxes that have been orphaned until they can be returned to the wild. I have cared for about 10 young flying foxes until their release and been involved in the care of dozens of other flying foxes at various times. The flying foxes I have cared for include Black Flying Foxes (*Pteropus alecto*) and Spectacled Flying Foxes (*Pteropus conspicillatus*).
6. Since 1999, I have been active as an advocate for conservation of flying foxes, on behalf of the North Queensland Conservation Council and the Queensland Conservation Council. I am currently a member of the government-appointed Flying Fox Consultative Committee established by the Queensland Department of Primary Industries. I have worked extensively on the issue of the conservation of flying fox and flying fox deaths in fruit orchards. Advocacy work by myself and colleagues resulted in a decision by the Queensland Government to no longer issue permits for the use of electric grids to kill flying foxes under the *Nature Conservation Act 1992*.
7. Since 2000, I have investigated the killing of flying foxes on orchards. In particular, in November and December 2000 I investigated a large number of flying foxes being electrocuted on a property near Kennedy in North Queensland. That investigation resulted in the Federal Court of Australia granting an injunction under the *Environment Protection and Biodiversity Conservation Act 1999*, restraining the fruit grower from electrocuting Spectacled Flying Foxes (reported as *Booth v Bosworth* (2001) 114 FCR 39; [2001] FCA 1453). I have also investigated other orchards in North Queensland with electric grids, including the respondents’ lychee orchard, and discovered a number of potential breaches of the *Nature Conservation Act*, all of which I reported to the QPWS. I have focused particularly on orchards with electric

grids as they have the potential to injure and kill large numbers of flying foxes and cause suffering.

Description of respondents' property "Edenvale" at 376 Volk Road, Mutarnee

8. The 33 hectare property owned by the respondents known as "Edenvale" is located at the end of Volk Road, Mutarnee, which runs off the Bruce Highway approximately 65 km north of Townsville and 45 km south of Ingham. Now shown to me and marked "CJB-2" is a true and correct copy of a property map obtained from the Department of Natural Resources on 17 December 2004 showing the property's location in relation to the Bruce Highway, Volk Road, and surrounding properties. The respondents' property is surrounded by Paluma National Park on three sides. Now shown to me and marked "CJB-3" is a true and correct copy of a Property Details Report obtained from the Department of Natural Resources on 17 December 2004. This Report shows that the property is owned by Frippery Pty Ltd.
9. On the respondents' property is a lychee orchard with aerial electric grids. A driveway from Volk Road splits the orchard into two sections. On the right hand section there are 4 electric grids. On the left hand side there are at least 3 grids, possibly more. The grids are constructed of approximately 15 wires, spaced approximately 20 centimeters apart. The wires are positioned above the height of lychee fruit trees on the land, commencing approximately 2.5 meters above the ground to a height of approximately 5-6 meters above the ground. The wires are strung horizontally between metal poles of approximately 5-6 meters in height, spaced approximately 20 meters apart. The wires are electrified by supply of a high voltage current. The 4 electric grids on the right hand side are approximately 100 to 150 meters in length each. The 3 or more electric grids on the left hand side are approximately 150 to 200 meters (although I did not estimate the entire length of these grids by walking along them). Thus, the total length of the electric grids may be 1,000 meters or more.

Previous observations at respondents' property

10. I first visited the orchard at 376 Volk Road, Muranee, in January 2001, to investigate killing of flying foxes by the electric grid. I observed there were electric grids on the orchard, but at the time there was no fruit on the trees, so I assumed the grids were not in operation. Under a Freedom of Information request to the QPWS in 2001, I learnt that no damage mitigation permit had ever been issued under the *Nature Conservation Regulations 1994* to the respondents for killing flying foxes.
11. In November 2003 I returned to the respondents' property one afternoon and one morning, and checked just one of the electric grids on the orchard. The lychees were sparse. I observed one dead Black Flying Fox on the electric grid that I checked and one underneath the grid which had injuries consistent with being shot. There were shotgun cartridges on the ground. I videotaped these observations and reported my findings to the QPWS. I understand that Mr Thomas was interviewed by a QPWS officer over the issue but that no further enforcement action was taken. I understand that no damage mitigation permit had been issued to the respondents to authorize the killing of flying foxes under the *Nature Conservation Regulations 1994*.

Observations at Edenvale on 16 and 17 December 2004

12. On 16 December 2004, near dusk at about 6 pm, in the company of Dominique Thiriet, I entered the respondents' property. I noted that there was fruit on the trees, most of it reddish in colour, indicating that it was ripe or close to ripe. The amount of fruit was variable: on some trees it was abundant, on other trees it was sparse. There were some white buckets and ladders in the orchard, suggesting that picking was in progress.
13. We initially went to the right hand section of the orchard to the first grid (grid 1) closest to the road and I observed dead flying foxes on the ground beneath this grid. I searched along a second grid (grid 2) on the right hand side and found more dead flying foxes. I videotaped each of the bodies observed. I then searched along 2 rows of lychee trees without electric grids, but observed no bodies. I did not search along the other 2 grids on the right hand side.
14. I searched along about half of a grid (grid 5) on the left hand side and observed 7 dead flying foxes on the ground underneath the grid. I videotaped these bodies. Also on the ground in some places were shotgun cartridges. There were no bodies observed on the electric grids.
15. Below is a summary of the dead flying foxes found underneath the grids.
 - Grid 1: 12 dead
 - Grid 2: 5 dead
 - Grids 3 & 4: not searched
 - Grid 5: half searched and 7 dead
 - Grids 6, 7 & others: not searched

Total: 24 dead flying foxes observed under 2.5 grids.
16. All dead flying fox bodies that I observed on the respondents' property were of the species *Pteropus alecto*, commonly known as Black Flying Foxes.
17. The bodies of the Black Flying Foxes that I observed were in various stages of decomposition, suggesting that they had been killed over a period of time. Some were fresh indicating they had been killed within the past day or so. Those bodies that were not too decomposed seemed intact, without any obvious injuries to the bodies apart from wing damage. They did not appear to have been shot. The wings in some cases had holes and broken and exposed wing bones. Given their location under an electric grid and the absence of other obvious external injuries I assumed that they had been electrocuted and the wing damage had been sustained during their removal from the grids. Although there were many shotgun cartridges on the ground, I did not see any bodies that showed evidence of pellet injury.
18. We left the respondents' property at about 6.30 pm.
19. I returned to the respondents' property with Dominique Thiriet the following morning on 17 December 2004, at about 2.30 am. We stayed outside the property in our car

until it started becoming light. During this time I heard the noise of a few, but not very many, flying foxes either in the orchard or in the forest next to the orchard.

20. At about 4.45 am, we entered the property and I searched along 4 grids on the right hand side of the property (grids 1, 2, 3 & 4) and along half a grid on the left hand side (grid 5). I observed a total of 5 dead flying foxes on the electric grids above these 4.5 grids. All dead flying foxes observed were Black Flying Foxes (*Pteropus alecto*). I videotaped these dead flying foxes. Below is a summary of my observations:

Grid 1: 1 dead

Grid 2: 2 dead

Grid 3: 0 dead

Grid 4: 1 dead

Grid 5 (half): 1 dead

Total: 5 dead on 4.5 grids

21. I left the respondents' property at approximately 5.15 am.
22. Annexed to this affidavit and marked "CJB-4" is a true and correct copy of the videotape of my observations of dead flying foxes (approx 9 minutes) taken by me on 16 and 17 December 2004 on the respondents' property.

Ecology, reproduction and conservation status of Black Flying Foxes

23. I am very familiar with the species of flying fox *Pteropus alecto*, commonly known as Black Flying Foxes, having cared for orphaned young and visited many colonies in Queensland. They are one of five mainland Australian indigenous species of flying foxes. Only 2 species of flying fox inhabit the area of the respondents' property: Black flying foxes and the nomadic Little Red Flying Foxes (*Pteropus scapulatus*).
24. As their name suggests, Black Flying Foxes are black in colour. They may have brownish or reddish fur on the back of the neck and shoulders. They are readily distinguishable from Little Red Flying Foxes. Annexed to this affidavit and marked "CJB-5" is a true and correct picture, taken of a young Black Flying Fox that I cared for in 2000-2001.
25. Black Flying Foxes are largely found in coastal northern Australia and inland where there is permanent water. Their range extends from mid-Western Australia into northern New South Wales. Black Flying Foxes roost in colonies consisting of a few dozen to many thousands of individuals. Total numbers of Black Flying Foxes are unknown as no counts have been conducted.
26. Black Flying Foxes rest in their colony camps by day and forage at night, eating blossoms, fruits, and leaves. Flying foxes are considered very important ecologically for their role in seed dispersal of fruits of native rainforest trees and pollination of native trees. Flying fox scientists Dr Les Hall and Dr Greg Richards in their book

Flying Foxes: Fruit and Blossom Bats of Australia (published by UNSW Press, 2000) say the following about the ecological role of flying foxes:

“Overall, there is a great deal of evidence that megachiropterans, and particularly flying foxes, play a vital pollination role in forest ecosystems in Australia” (p. 80).

“In Australia, flying foxes and tube-nosed fruit bats may be the only seed dispersal agent for many rainforest trees, and therefore play an important role in the long-term survival of some tree species” (p. 80).

“Myrtaceae appear to be highly dependent upon flying foxes in Australia for outcrossed pollination, and a large suite of rainforest tree species are dependent upon them for pollination and seed dispersal...” (p. 84)

27. Black Flying Foxes give birth to young from late September to November. For about the first 3 weeks of life, the young flying fox is carried by its mother when she forages. After that, the young is left in a crèche at the flying fox camp with other young or, as it gets older, on its roost branch, while the mother goes out to feed. Young flying foxes are dependent on their mothers until at least January or February when they start to fly out with the colony to forage at night. Thus, any killing of a lactating female from September till February will most likely also result in the death of a young flying fox from starvation.
28. Black Flying Foxes are listed as a common mammal under Schedule 5 of the *Nature Conservation (Wildlife) Regulation 1994*. This means that they are not considered to be under threat of extinction by the Queensland government. However, flying fox populations are sensitive to imposed mortality such as culling on fruit orchards. Scientists Dr Allen McIlwee and Dr Len Martin have carried out population modeling for flying foxes to determine the likely impacts of culling. In their paper “On the intrinsic capacity for increase of Australian flying-foxes (*Pteropus spp.*, *Megachiroptera*)” published in *Australian Zoologist* in 2002, they state the following in the paper’s abstract:

“Flying foxes are long-lived, seasonal breeders, with a rigid, well-defined breeding season that is largely or wholly genetically determined. Unlike opportunistic, highly reproductive species, such as rabbits or mice, female flying foxes are unable to produce viable young before their second or third year of life, and are then capable of producing just one young per year. Such a breeding strategy will be successful only if flying-foxes are long-lived and suffer naturally low mortality rates...Our models show explicitly that flying-fox populations have a very low capacity for increase, even under the most ideal conditions.”

29. Annexed to this affidavit and marked “**CJB-6**” is a true and correct copy of McIlwee, A.P. and Martin, L. (2002) “On the intrinsic capacity for increase of Australian flying-foxes (*Pteropus spp.*, *Megachiroptera*)”, *Australian Zoologist* 32(1): 76-100.

Control of flying foxes on orchards – impacts and options

30. Flying foxes are regarded by many fruit growers as a pest because they eat and damage some commercial fruits, including lychees. This is to be expected as many commercial fruit trees are the descendants of wild fruit trees which rely on flying foxes eating their fruit for seed dispersal. In North Queensland, flying foxes are attracted to lychee

orchards when the fruit is ripe or ripening from about November to January. The time during which lychee orchards are vulnerable to damage by flying foxes may last from 6-8 weeks. Fruit growers may apply for a Damage Mitigation Permit under the *Nature Conservation Regulation 1994* to kill flying foxes to protect commercial fruit crops. Up until mid-2001, fruit growers in Queensland could apply for a permit to kill flying foxes by electrocution on an aerial electric grid.

31. In July 2001, the minister administering the *Nature Conservation Act 1992*, the Minister for Environment, determined to adopt a policy that the QPWS would not issue any more Damage Mitigation Permits for the lethal use of electric grids. This decision was made on the basis that the use of grids was cruel. Annexed to this affidavit and marked “CJB-7” is a true and correct copy of a letter from the Senior Policy Advisor to the Minister informing me of this decision. Also now shown to me and marked “CJB-8” is a true and correct copy of a QPWS document “Attachment 1. Humaneness of electric grids”, which discusses the grounds on which the QPWS decided that use of electric grids was not humane. The decision to not issue permits for lethal electric grids remains current, as stated in the QPWS Guideline *Damage Mitigation Permits for flying foxes*, current until September 2005. This Guideline states that permits can be issued for shooting Black Flying Foxes. The maximum number is “30 for each month the permit is in force.” The maximum number of Black Flying Foxes that can be taken in Queensland during the 2004-05 season is 3500. Now shown to me and marked “CJB-9” is a true and correct copy of the Guideline *Damage Mitigation Permits for flying foxes*.
32. There are alternative and non-lethal methods available to fruit growers to protect their crops from damage by flying foxes, in particular, netting. Now shown to me and marked “CJB-10” is a true and correct copy of extracts from a document entitled *To Net or Not to Net*, published by the Queensland Department of Primary Industries, which outlines crop protection options for fruit farmers.

Potential for future deaths on the respondents’ property

33. It is impossible to estimate how many flying foxes will die on the respondents’ electric grids if they are used for the rest of the 2004-2005 lychee season. Killing flying foxes on electric grids is indiscriminate and there is inherent potential for the grids to kill extremely large numbers of flying foxes. During my investigation of an orchard near Kennedy with 6.4 km of electric grid, I estimated deaths of 300-500 Spectacled Flying Foxes per night, based on observations on 4 different occasions over a period of about 2 weeks.
34. The extent of killing on any one night of use of an electric grid is probably a factor of the total number of flying foxes in the orchard and how long they stay feeding in the orchard. The total number of deaths will also depend on the number of lactating females that are killed as their death results in the death of their young. The number of flying foxes visiting the orchard will depend on the number of flying foxes within flying distance, the availability of other food and the relative attractiveness of the lychees compared to other sources of food. None of these factors can be established for the respondents’ property.

35. However, if the number of likely dead is extrapolated from my observations of just one night of electrocutions on part of the respondents' property, another fortnight of use of the electric grid would result in the death of greater than 100 Black Flying Foxes (calculated on the basis of 5 x 1.5 grids x 14 nights = 105 dead flying foxes). There is a strong potential for far larger numbers than this to be killed.

Remedying the killing of Black Flying Foxes on the respondents' property

36. It is not possible to directly remedy the unlawful killing of Black Flying Foxes that I observed on the respondents' property on 16 and 17 December 2004, but a donation for the care and rehabilitation of injured Black Flying Foxes will remedy, as close as practicable, the damage to the local population of Black Flying Foxes.

37. The Tolga Bat Hospital operated by the Tolga Bat Rescue & Research Inc, PO Box 685, Atherton Tablelands, Queensland, 4883 is a non-profit facility and organisation for the care, rehabilitation and research into injured flying foxes. The website of the Tolga Bat Hospital at <http://www.athertontablelands.com/bats/> (viewed 20 December 2004) states that a donation of \$50 to the Tolga Bat Hospital provides treatment and feeding of an adult flying fox for approximately 6 weeks, making a donation of \$1,000.00 provide for the treatment and care of 20 adult Black Flying Foxes for approximately 6 weeks.

All the facts affirmed in this affidavit are true to my knowledge and belief except as stated otherwise.

Affirmed by Carol Jeanette Booth)
at Brisbane this)
21st day of December 2004)
Before me:)

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Deponent

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Justice of the Peace / Solicitor