



Environmental Defenders Office of Northern Queensland Inc.

12 September 2012

VIA EMAIL (arec@parliament.qld.gov.au)

Agriculture, Resources and Environment Committee
Queensland Parliament
Parliament House
Brisbane QLD 4000

**Re: Land Protection Legislation (Flying-fox Control) Amendment Bill
2012 – Submissions of Environmental Defenders Office of Northern
Queensland Inc.**

Dear Sir/Madam,

The Environmental Defenders' Office of Northern Queensland Inc. ("EDO-NQ") is a not-for-profit, non-government, community legal centre specialising in public interest environmental law. Like other EDOs located in each of Australia's states and territories, EDO-NQ provides specialised legal representation, advice and information to individuals and communities regarding environmental law matters of public interest. We also take an active role in environmental law reform and policy formulation, and offer community legal education programs designed to facilitate public participation in environmental decision making.

EDO-NQ is based in Cairns and provides service to the public from Sarina north to the Torres Strait and west to the state border. *The Land Protection Legislation (Flying-fox Control) Amendment Bill 2012* ("Bill"), introduced by MP Shane Knuth (Dalrymple) has clear and significant impacts on EDO-NQ's service area.

As detailed below, five (5) species of flying fox are affected by the Bill. Each species enjoys protection under either or both the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) ("EPBC Act") or the *Nature Conservation Act 1992* (Qld) ("NC Act"). EDO-NQ has provided assistance to numerous individuals and community groups regarding the implementation and enforcement of this legislation in Far North Queensland. The proposed Bill undermines the achievement of the objectives of this legislation and is broadly repugnant to those objectives.

Moreover, as a group, flying foxes play a vital role in maintaining the health of Queensland's rich biodiversity, pollinating flowers and dispersing seeds of many native trees, particularly iconic rainforest trees and valuable fruit trees. Moreover, flying foxes are one of the iconic species that many residents, and tourists, in Far North Queensland enjoy seeing in their native environments. EDO-NQ has provided assistance to numerous individuals and community groups seeking to promote and protect the biodiversity and sustainable industries, like tourism and agriculture, of

the region. The proposed Bill will negatively impact on those industries, and the biodiversity that those industries rely upon.

In addition, much of the range of flying foxes affected by the Bill overlaps the Wet Tropics of Queensland World Heritage Area (“WTWHA”) and the flying foxes are recognized as part of the outstanding universal values (“OUV”) upon which the WTWHA was inscribed on the World Heritage List. Mr. Knuth’s Bill, which clearly will adversely impact upon flying foxes and populations, is an action that calls up whether the State Party to the 1972 World Heritage Convention (the State Party consisting of Queensland and Australia as a result of federation) is implementing its obligations consistently with that Convention. Indeed, Mr. Knuth’s Bill calls into question whether other UN conventions to which Australia is a signatory, such as the 1992 Convention on Biodiversity, are being properly implemented.

EDO-NQ welcomes the opportunity to lodge submissions with the Agriculture, Resources and Environment Committee (“Committee”) regarding the Bill.

I. SUMMARY OF THE BILL

On 21 June 2012, Shane Knuth MP (Member for Dalrymple) introduced the Bill. According to the Explanatory Note accompanying the Bill, the purpose of the proposed legislation is “to allow land owners (private and government) to take necessary and reasonable action to control increasing concentrations of flying-fox populations in residential areas to address health risks posed to humans by the spread of infectious diseases”.¹ In reaction to this supposed health risk, the Explanatory Note states that the Bill “is necessary to place appropriate prioritization on the risk of contracting a fatal disease as a result of community exposure to flying foxes. . . .”.

The Explanatory Note makes clear the misplaced and uninformed fear that underlies the Bill’s introduction and its ultimate objective in the following statement:

Residents ***forced to tolerate*** the presence of tens of thousands of flying foxes and the associated risk of disease are ***clear in their demands to have flying foxes removed from their communities by whatever means necessary.***²

The Bill amends two pieces of State legislation - The *Land Protection (Pest and Stock Route Management) Act 2002* (Qld) (“Land Protection Act”) and the *Nature Conservation Act 1992* (Qld), in order to permit landowners who “possess or develop a reasonable belief that the resident flying-foxes pose a serious health risk to humans”, to indiscriminately “destroy a flying fox”; “disturb or drive away a flying fox”; and “destroy or disturb a flying fox roost”. The Bill also removes all protection for flying-foxes currently provided under section 88C of the Nature Conservation Act 1992.

¹ Explanatory Note, p 1.

² *Ibid*, p 3 (emphasis added).

II. GENERAL COMMENTS – ADOPTION AND INCORPORATION OF BOOTH SUBMISSION.

As an initial matter, EDO-NQ has reviewed the excellent submission on this Bill compiled by Carol Booth and lodged on behalf of a number of groups, including Bath Conservation & Rescue Qld, Bat Rescue Inc., Batwatch Australia, Tolga Bat Hospital, Tweed Valley Wildlife Carers, and Wildlife Queensland (the “Booth Submission”). The Booth Submission clearly and decisively refutes two pillars upon which the Bill is premised – namely the notion that: (1) flying fox populations are on the rise,³ and (2) flying foxes pose a serious threat to humans. EDO-NQ broadly concurs with the Booth Submission and adopts and incorporates by reference herein the cogent analysis and submissions contained therein.

EDO-NQ further notes the fatuity of the Explanatory Note’s assertion that “[e]xtensive consultation and research has been conducted on the impact of flying-foxes in urban areas as well as the impact of large colonies to crop production in agricultural areas” since there is not one citation to any research, consultation, report, etc in support of this claim. Similarly unsubstantiated in the Explanatory Note are claims that “[m]anagement of other flying-fox related issues . . . are cost-prohibitive” and that “[a]pproved dispersal methods have proven unsuccessful in the long term”.⁴

EDO-NQ will focus its submission on additional factual, legal or policy matters that further warrant the Committee’s recommendation that Parliament vote to reject the Bill at the earliest opportunity.

III. SPECIFIC EDO-NQ COMMENTS.

A. The Bill Is Clearly Repugnant To Commonwealth Law.

The Bill is clearly repugnant to the intent, objectives and provisions of the Commonwealth’s EPBC Act, which is the overarching piece of Commonwealth legislation for environmental protection in Australia and was enacted to fulfill Australia’s international obligations under the Biodiversity Convention, signed by Australia in 1993. As such, Mr. Knuth’s Bill appears to seek to elevate State law over Federal, in direct conflict with section 109 of the Commonwealth of Australia Constitution Act (“Constitution”). Section 109 of the Constitution provides quite succinctly:

Inconsistency of laws

When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

The Bill itself is inconsistent with – indeed it is in direct conflict with – the provisions of the Commonwealth EPBC Act. Moreover, the Bill seeks to broadly authorize

³ See, e.g., *ibid*, p 1 (“the emerging conditions of rising flying-fox populations”) & p 2 (“flying-fox numbers have doubled in the last five years”).

⁴ *Ibid*, p 2.

Queensland landowners to broadly engage in actions that likely will expose those landowners to strict liability for violating the provisions of the EBPC Act.

Broadly speaking, the EPBC Act establishes a requirement and process for certain proposed actions to be referred to the Commonwealth Minister for the Environment, and for some of those proposed actions to be assessed before a decision is made on whether or not they are approved and may proceed. In short, the EPBC Act gives the Commonwealth authority to regulate “controlled actions”, which are in turn defined as:

[A]ny action(s) that has, will have or is likely to have a significant **impact** on:
a matter of “National Environmental Significance” (“MNES”);
the environment anywhere if the action is taken on Commonwealth land;
the environment on Commonwealth land if the action is taken outside Commonwealth land; or
any environment (whether inside or outside Australia) if the action is taken by the Commonwealth.⁵

The EPBC Act prohibits a person taking a controlled action unless the person proposing to take the action has obtained an appropriate approval from the Commonwealth Minister for the Environment (“the Minister”)⁶. If a person takes a controlled action without proper approval from the Minister, he or she may be guilty of, and prosecuted for, an offence under the EPBC Act. The Minister has special powers under the EPBC Act to essentially reject a proposed action if the Minister believes that it will have unacceptable impacts on a MNES or on the environment on Commonwealth land.⁷

The Court in *Telstra v Worthing* (1999) 197 CLR 61, at 76-77, set forth the seminal principles of inconsistency proscribed by s 109 of the Constitution as follows:

When a State law, if valid, would alter, impair or detract from the operation of a law of the Commonwealth Parliament, then to that extent it is invalid.

Moreover, if it appears from the terms, the nature or the subject matter of a Federal enactment that it was intended as a complete statement of the law governing a particular matter or set of rights and duties, then for a State law to regulate or apply to the same matter or relation is regarded as a detraction from the full operation of the commonwealth law and so inconsistent.

State law may be rendered invalid either because it is in “direct” conflict with Federal law (*i.e.*, contradictory in terms or application),⁸ or because it is impossible to obey both laws – in other words, obedience to State law may constitute disobedience with Federal law.⁹

⁵ s.67: *EPBC Act*

⁶ Part 3: *EPBC Act*

⁷ ss.74B & 74C: *EPBC Act*

⁸ See *Miller v Miller* (1978) 141 CLR 269 at 275.

⁹ See *Blackley v Devondale Cream (Vic) Pty Ltd* (1968) 117 CLR 253.

Both tests for invalidating inconsistency appear to apply to Mr. Knuth's Bill. For example, with regard to the impossibility of obedience to both laws, a Queensland landowner would be authorized under Mr. Knuth's bill to destroy flying foxes based on a reasonable fear of health threat without being obliged to first obtain approval. That same landowner, acting without approval, would be taking action that has the potential to have an adverse impact – direct, indirect or cumulative – upon MNES and, unless approved or declared not a controlled action, could subject the landowner to strict liability under the EPBC Act.

B. The Flying Foxes Targeted By The Bill, Particularly Spectacled And Grey-Headed Flying Foxes, Are MNES Under The EPBC Act.

Mr. Knuth's Bill targets 5 species of flying fox for extermination: (1) the Spectacled Flying Fox (*Pteropus conspicillatus*); (2) the Grey-Headed Flying Fox (*Pteropus poliocephalus*); (3) the Black Flying Fox (*Pteropus alecto*); (4) the Little Red Flying Fox (*Pteropus scapulatus*); and (5) the Large-eared Flying Fox (*Pteropus macrotis* ssp. *epularius*). The first four of these species of flying fox appear to fit within the scope of MNES subject to protection under the EPBC Act, and this is clearly so for the first 2 species targeted by Mr. Knuth's Bill.

First, with regard to the Spectacled Flying Fox and the Grey-Headed Flying Fox, these species are expressly listed as "vulnerable" species under the EPBC Act.¹⁰ Listed threatened species and communities under the EPBC Act are MNES under ss 18 and 18A of the Federal legislation. Indeed, the Commonwealth promulgated a National Recovery Plan for the Spectacled Flying Fox just 2 years ago. As discussed further below, it is hard to conceive of a more clear challenge to the Federal programme to protect the Spectacled Flying Fox than Mr. Knuth's Bill authorizing their wholesale slaughter by Queensland landowners.

Second, flying foxes – in particular Spectacled Flying Foxes – are part of the natural values of World Heritage properties identified as MNES under ss 12 and 15A of the EPBC Act. As noted in the Commonwealth's National Recovery Plan for the Spectacled Flying Fox:

The spectacled flying fox is listed under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). ***Populations of the spectacled flying fox are recognised as values of the Wet Tropics of Queensland World Heritage Area***, a World Heritage property under the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention). ***The World Heritage values of declared World Heritage properties are protected under the EPBC Act.***¹¹

¹⁰ See "EPBC Act List of Threatened Fauna" <http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna>; accessed 11 September 2012. The Spectacled Flying Fox was first listed as Vulnerable on 14 May 2002, while the Grey-Headed Flying Fox was listed as Vulnerable on 6 December 2001. *Ibid.*

¹¹ National recovery plan for the spectacled flying fox *Pteropus conspicillatus*: Report to the Department of Sustainability, Environment, Water, Population and Communities, p 6 (Queensland Department of Environment and Resource Management 2010); accessed 11 September 2012 at

That the Spectacled Flying Fox is part of the World Heritage values of the WTWHA was confirmed by the Court in *Booth v Bosworth & Bosworth* [2001] FCA 1453. In that decision, the Federal Court wrote:

18. 10. The world heritage values of the Wet Tropics World Heritage Area are summarised as follows:

- (a) an outstanding example representing the major stages in the earth's evolutionary history;
- (b) an outstanding example representing significant ongoing ecological and biological processes;
- (c) an example of superlative natural phenomena; and
- (d) containing important and significant habitats for in situ conservation of biological diversity."

* * *

67. I am satisfied that the Spectacled Flying Fox is an example of a species that entered North-east Australia following the connection of the Australian and Asian continental plates. This satisfaction is based on the statement in the Nomination Document that "[o]f the Australian mammals, the rodents and bats are considered to have entered since connections with the Asian plate were established" and on the evidence that the only other country in which the species is found is Papua New Guinea. ***I am consequently satisfied that the Spectacled Flying Fox contributes to the world heritage values of the Wet Tropics World Heritage Area as part of the record of the mixing of the faunas of the two continental plates.***

68. ***I am further satisfied that the Spectacled Flying Fox contributes to the world heritage values of the Wet Tropics World Heritage Area on the following bases.*** First, I am satisfied that the Spectacled Flying Fox ***contributes to the genetic diversity and biological diversity*** of the Wet Tropics World Heritage Area. For this reason I am satisfied that the species contributes to the character of the Wet Tropics World Heritage Area as a "superlative natural phenomena" by reason of its being "one of the most significant regional ecosystems in the world". Secondly, for the same reason, I am satisfied that the species ***constitutes part of the biological diversity for which the Wet Tropics World Heritage Area is a most important and significant natural habitat for in-situ conservation.***

The same rationale and reasoning applies to the Grey-Headed Flying Fox as well. The Commonwealth's 2003 supplement to the listing advice for this species of flying fox is clear on this point. The 2003 listing supplement states:

The Grey-headed Flying-fox is found along the east coast of Australia, ranging from Bundaberg in Queensland to Melbourne and as far west as Warrnambool on the far west Victorian coast. The range extends from the coast inland to the western slopes of New South Wales. There have also been recent reports of the Grey-headed Flying-fox in South Australia.

The Grey-headed Flying-fox is an integral part of the World Heritage values of both the Greater Blue Mountains (GBM) and Central Eastern Rainforest Reserves (Australia) (CERRA) World Heritage Areas. It is present in at least three of the eight conservation reserves that constitute the GBM World Heritage Area and at least seven of the approximately fifty conservation reserves that comprise the CERRA World Heritage Area.

In addition to its inherent value as an element of the native fauna of the two properties, the Grey-headed Flying-fox is also important for the propagation and ongoing evolution of flora that are part of the World Heritage values of these areas. It is an important pollinator and seed disperser of native trees, foraging on the nectar and pollen of native trees, in particular Eucalyptus, Melaleuca and Banksia, and on the fruits of rainforest trees and vines.¹²

While the 2003 listing supplement refers only to the Greater Blue Mountains and Central Eastern Rainforest Reserves World Heritage Areas, there is ample evidence that the Grey-Headed Flying Fox also contributes to the World Heritage values of the Gondwana Rainforests of Australia World Heritage Area (“GRWHA”) in Queensland as well. A portion of the GRWHA lies in southeastern Queensland. Commonwealth maps of the range and known location of Grey-Headed Flying Fox camps show that the range of this species overlaps with the GRWHA.¹³ It is reasonable to conclude that the same contribution to World Heritage values played by the species in New South Wales’ WHAs is also played in Queensland’s GRWHA.

Of the remaining 3 species of flying fox targeted for liquidation in Mr. Knuth’s Bill, both the Black Flying Fox and the Little Red Flying Fox likewise are part of the World Heritage values of the WTWHA and the GRWHA. The range, distribution and life cycle (including feeding habits) described for these 2 species are broadly similar to those of the Spectacled and Grey-Headed flying foxes. Both the Little Red and the Black flying fox have larger ranges and distribution than either the Spectacled or Grey-Headed flying fox, and those ranges encompass both the WTWHA and GRWHA.¹⁴ Like Spectacled and Grey-Headed flying foxes, the Black and Little Red species’ diets consists mainly of fruit and nectar, with most of the nectar sources coming from the *Myrtaceae* family, in particular the *Eucalyptus*, *Corymbia*, *Melaleuca* and *Angophora* genera. Other blossom food sources are members of the *Proteaceae*, *Fabaceae*, *Arecaceae*, *Elaeocarpaceae*, and *Xanthorrhoeaceae* families. A wide variety of native and exotic fleshy fruits are also eaten and native figs such as Moreton Bay fig (*Ficus macrophylla*) and weeping fig (*Ficus benjamina*) are considered to be particularly important.¹⁵

¹² Administrative Guidelines on Significance - Supplement for the Grey-headed Flying-fox, Commonwealth Department of Environment and Heritage, p 4 (2003); accessed 12 September 2012 at <http://www.environment.gov.au/epbc/publications/grey-headed-flying-fox.html>.

¹³ See Map 1: The modelled distribution of the grey-headed flying-fox (*Pteropus poliocephalus*) with map index, Department of Sustainability, Environment, Water, Population and Communities; accessed 12 September 2012 at <http://www.environment.gov.au/biodiversity/threatened/species/flying-foxes.html>; compare Gondwana Rainforests of Australia WHA boundary map; accessed 12 September 2012 at <http://www.environment.gov.au/heritage/places/world/gondwana/index.html>.

¹⁴ See Flying Foxes Conservation Action Statement, Brisbane City Council, pp 4-6, Map 1 and Figure 1 (September 2010); accessed 12 September 2012 at <http://www.brisbane.qld.gov.au/environment-waste/natural-environment/wildlife/threatened-species/index.htm> (under “Mammals”).

¹⁵ *Ibid*, pp 10-11.

The sole remaining flying fox species targeted in the Bill (as a member of the genus *Pteropus*) – the Large-eared Flying Fox – is an odd addition since the species occurs in Australia only on islands in the northern Torres Straits.¹⁶ Given the limited numbers and range of the Large-eared Flying Fox, the purported threat posed by this species to Queenslanders (even allowing for the utter lack of scientific data connecting health threats to flying foxes, as noted in the Booth Submission) is either non-existent or infinitesimally small and certainly does not justify reversing the protections extended to native fauna by the *Nature Conservation Act 1994* (Qld) or extending pest status to this species under the *Land Protection (Pest and Stock Route Management) Act 2002* (Qld).

In any event, with regard to all 5 species slated for destruction in Mr. Knuth's Bill, the Committee must be mindful of the Commonwealth's general admonishment regarding flying foxes:

It is important to remember that ***state governments, irrelevant of a national listing status, consider all species of flying fox to be protected species.***¹⁷

Nothing in the Explanatory Note suggests that there is any real, genuine, demonstrable health risk associated with any species of flying fox that would justify, let alone necessitate, the holocaust for flying foxes sought in the Bill.

C. MP Knuth's Bill Also Jeopardises Australia's Compliance With Its Obligations Under The 1992 Convention For The Preservation Of Biodiversity.

The Bill proposed by Mr. Knuth also jeopardizes Australia's compliance with its obligations under the 1992 Convention for the Preservation of Biodiversity ("Biodiversity Convention"), independent of the EPBC Act's operation. Article 8 of the Biodiversity Convention, entitled "In-situ Conservation" obligates Australia as follows:

Article 8. In-situ Conservation

Each Contracting Party shall, ***as far as possible and as appropriate:***

- (a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
- (b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;
- (c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;

¹⁶ See <http://australianmuseum.net.au/Large-eared-Flying-fox>.

¹⁷ Department of Sustainability, Environment, Water, Population and Communities (Cth) (last sentence under the heading "Why are Flying-foxes nationally protected?"; accessed 12 September 2012 at <http://www.environment.gov.au/biodiversity/threatened/species/flying-foxes.html>).

- (d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings:
- (e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas:
- (f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, *inter alia*, through the development and implementation of plans or other management strategies:
- (g) Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health:
- (h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species:
- (i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components:
- (j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices:
- (k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations:
- (l) Where a significant adverse effect on biological diversity has been determined pursuant to Article 7, regulate or manage the relevant processes and categories of activities: and
- (m) Cooperate in providing financial and other support for *in-situ* conservation outlined in subparagraphs (a) to (l) above, particularly to developing countries.

In addition, to the extent the Bill encourages the wholesale destruction of potentially unlimited numbers of flying foxes in reaction to an overblown and unsubstantiated “health threat” posed to humans (a claim clearly refuted in the Booth Submission), the Bill appears to violate Australia’s obligations under Article 13 of the Biodiversity Convention as well. That article of the Convention, entitled “Public Education and Awareness” commands State Parties to:

- (a) Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and
- (b) Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.

It is hard to conceive of a piece of legislation that does less to promote and encourage an understanding of the importance of conserving Queensland’s

biological diversity than Mr. Knuth's Bill. Not only are native species decimated under the Bill but the vital role flying foxes play in maintaining the broader biodiversity of plants and animals in Queensland, as pollinators and seed dispersers for dozens of species of native trees, is gravely threatened.

D. The Bill Is Inherently Flawed.

In addition to all the foregoing reasons for recommending rejection of Mr. Knuth's Bill, the Committee should also recommend rejection based on the fact that the Bill is inherently flawed in both conception and implementation.

As an initial matter, with regard to its conflict with the provisions of the EPBC Act, the Explanatory Note blandly notes that, with respect to Spectacled and Grey-Headed flying foxes, "new flying-fox management strategies may require approval under [the EPBC Act]".¹⁸ This clearly is an understatement and ignores the clear conflict the Bill would create with Federal law if enacted.

The Explanatory Note also claims that the Bill "places limitations on the killing of flying foxes by outlining considerations landowners must employ before taking such action".¹⁹ A review of the Bill reveals no such considerations, however. If the landowner is a local government, the Bill requires only that the following be considered before using "any means necessary" to cull the flying fox population, namely the size of the flying fox population in the local government area, the duration of the colony, and the level of risk associated with the flying fox location.²⁰ These hardly provide limitations on local government efforts to exterminate flying foxes.

Moreover, not even these considerations apply to private landowners. To private landowners, the Bill gives a licence to kill flying foxes based on a purely subjective (and likely unsubstantiated) "reasonable belief" that destruction of a flying fox is necessary to "reduce the risk of disease or harm" to a resident of a local government area.²¹ The latter provision is particularly noteworthy since it allows a private landowner to kill flying foxes based on perceived risks to any resident of the local government area – not just the landowner and his or her family.

In addition, the language about "risk of disease *or harm*" leaves open the following question: In addition to risk of disease, what harm would justify a landowner's slaughter of flying foxes? Presumably, "harm" could include property damage – including something as innocuous as bat droppings on a car, house or laundry.

Finally, the Bill is likely to allow far greater killing of flying foxes than perhaps even its sponsor (and supporters) realize. This is because of the likely "vacuum effect" of killing by one landowner of a colony on his or her land on the movement of new flying foxes into the void left by the landowner's action. This effect was noted by the Federal Court in *Booth v Bosworth & Bosworth*:

¹⁸ Explanatory Note, p 3.

¹⁹ *Ibid*, p 2.

²⁰ Bill, p 5 (amending s 96C(3) of the Land Protection Act).

²¹ *Ibid*, p 5 (amending s 96C(1) of the Land Protection Act).

83 . . . When asked to explain what he meant by "**vacuum effect**" Mr. Richards said:

In a lot of animal populations if you are trying to control them - for example, if you poison animals that have established territories, those that have been kept out of the territory by the ones pre-poisoning, there's a balance. ***But if you take out a group that maintain territorial boundaries, for example, then others break their boundaries and move in. And that's called a vacuum effect.***

. . . [because the landowners] can keep killing animals. It's not as if there's a discrete number in an area to kill, because these animals are very, very mobile, and this sort of method of orchard control has the potential to just keep killing animals as they discover the orchard and attempt to feed in it, and it just becomes like a vacuum going down the bath plug."

84 To the same effect was the evidence of Dr Martin who in his report stated:

. . . Similarly, if there is a good food source and bats from a local roost are being killed, bats from more distant areas will move into vacancies in that roost. Thus, to the grower killing the animals, there will be a perception of "millions" of animals - a never-ending supply - and a misconception that the animals breed like rats and mice. The ecological technical term for such movement into a cull site is "source-sink dispersal" (Pulliam, 1996); ***the site of culling is the "sink" into which animals move from surrounding "source" areas. Not only will any orchard culling of a perceived "local" population fail to eradicate attacks upon the orchard, but the slaughter will produce a vacant niche, a pteropucidal black hole which will drag animals into it from far afield. The image of a black hole and its irresistible gravitational force sweeping every-thing [sic] into its maw is, I believe, a not unreasonable metaphor.*** Not only will this particular orchard culling fail to eradicate attacks upon the orchard, because of replacement of bats, but the slaughter will produce the local vacant niche, which will then become occupied by animals moving into it from further afield, which are then killed, so producing a local vacant niche which then . . . and so on.²²

In short, the slaughter of flying foxes that will ensue under Mr. Knuth's Bill, while difficult to quantify, is likely to be grossly underestimated.

E. The Bill Clearly Ignores Positives Associated With Protecting Flying Foxes.

In targeting flying foxes for destruction based on errant assumptions that the population of flying foxes is exploding and that flying foxes pose a grave risk to human health, the Bill manages to entirely overlook the economic benefits

²² [2001] FCA 1453.

associated with large, healthy flying fox populations. One of the documents linked from the Committee's website regarding the Bill, for example, notes:

Flying foxes present a possible tourist attraction. Batty Boat Cruises, for example, have been operating each Brisbane summer for over 20 years. The cruise visits Indooroopilly Island to watch the bats fly-out at sunset. It has also been asserted that flying foxes could become Cairns' "newest tourist attraction". It was reported in February 2010 that "[d]ozens of tourists have been gathering near the Cairns Library each afternoon to watch hordes of bats flying away from nearby trees in search of food at dusk". In Pinalba too, the flying fox colony has been promoted as a tourist attraction.²³

From practical experience, the Staff of EDO-NQ can personally attest to the tourism value and appeal of the Spectacled Flying Fox camp resident at the Cairns Library branch on Lake Street.

Furthermore, neither the Bill nor the Explanatory Note give any consideration to the role and benefit of flying foxes as pollinators and seed dispersers in safeguarding the Queensland's biological diversity and agricultural industry. For example, the Department of Environment and Heritage Protection's website linked by the Committee in connection with the Bill notes:

Flying-foxes play an important role in maintaining healthy ecosystems as essential pollinators and seed dispersers for native forests. In turn, these forests provide valuable timber, act as carbon sinks, stabilise our river systems and water catchments, and promote recreation and tourism opportunities returning millions of dollars to our economy each year.²⁴

This observation is certainly echoed in the government and scientific literature referenced in the Booth Submission and that EDO-NQ has reviewed. Among other things, the literature makes clear the crucial role flying foxes play in maintaining healthy ecosystems and biodiversity:

Flying-foxes are essential in maintaining ecosystems because they can move pollen and seeds over long distances and across cleared ground, linking patches of native vegetation. The clearing of native vegetation in the last two centuries has removed much vegetation and has left the remainder scattered in isolated patches. ***Birds and insects often don't fly the long distances required to transfer pollen or seeds between vegetation patches.***

Flying-foxes carry pollen on their fur between flowering trees that can be many kilometres apart. Many Australian trees, especially eucalypts, need pollen from another tree of the same species to make fertile seed. Rainforest seeds are carried away from parent trees which gives them a chance to germinate and grow.

²³ Westcott, Mary, "Flying Foxes in Australia's Urban Environment", e-Research Brief 2010/12, p 6 (April 2010); accessed 12 September 2012 at <http://www.parliament.qld.gov.au/documents/explore/ResearchPublications/ResearchBriefs/2010/eRBR201012.PDF>.

²⁴"Flying foxes", DEHP, accessed 12 September at <http://www.ehp.qld.gov.au/wildlife/livingwith/flyingfoxes/>.

Flying-foxes play a major role in the regeneration of native hardwood forests and rainforests by pollinating as they feed and dispersing seeds as they move throughout the forest. It is estimated that a single Flying-fox can dispense up to 60,000 seeds in one night.²⁵

*Through this role they provide habitat for other flora and fauna species and add value for other forest uses such as hardwood timber, honey and native plant industries.*²⁶

CONCLUSION

EDO-NQ appreciates the opportunity to submit comments on the proposed Bill and urges the Committee to recommend to Parliament the Bill's rejection for the reasons set forth herein, as well as the reasons set forth in the Booth Submission.

Faithfully yours,
EDO-NQ



PATRICK PEARLMAN
Principal Solicitor

²⁵See Department of Sustainability and Environment (Vic) website, "About flying foxes"; accessed 12 September 2012 at <http://www.dse.vic.gov.au/plants-and-animals/flying-foxes-home-page/flying-foxes-about-flying-foxes#4>.

²⁶ *Ibid.*