## fracking inquiry

From: Gypsy Cass

Sent: Monday, 22 January 2018 5:21 PM

**To:** fracking inquiry

Subject:Submission to draft final reportAttachments:GC submission frack inquiry.docx

Dear Fracking Inquiry,

Please accept this submission to your draft final report.

Yours kindly, Gypsy Cass

## Submission to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory.

Dear Justice Pepper and Panel,

Thank you for this opportunity to comment on your Draft Final Report. As a wildlife carer and vet nurse, I am concerned that this report has not fully considered the impacts of fracking on our native wildlife.

I am writing to highlight the impacts that onshore shale gas extraction and all its associated activities (fracking) will have on the native wildlife of the Northern Territory and why fracking should be banned throughout the entire Northern Territory.

I went through the list of NT threatened amphibians, birds, invertebrates, mammals and reptiles on the NTG's website<sup>1</sup> and found these threatened species (some listed as critically endangered) live in the Beetaloo region: Northern Quoll<sup>2</sup>, Golden Backed Tree Rat<sup>3</sup>, Australian Painted Snipe<sup>4</sup>, Gouldian Finch<sup>5</sup>, Golden Bandicoot<sup>6</sup>, Carpentarian Antechinus<sup>7</sup>, Floodplain Monitor<sup>8</sup>, Ghost Bat<sup>9</sup>, Brush-tailed Rabbit-rat<sup>10</sup>, Carpentarian Grasswren<sup>11</sup>, Brushtail Possum<sup>12</sup>, Great Bilby<sup>13</sup>, Grey Falcon<sup>14</sup>, Mitchells Water Monitor<sup>15</sup>, Northern Shrike Tit<sup>16</sup>, Painted Honeyeater<sup>17</sup>, Pale Field Rat<sup>18</sup>, Plains Death Adder<sup>19</sup>, Princess Parrot<sup>20</sup>.

I hold grave concerns for our wildlife, especially our rare and endangered species, if fracking is allowed to proceed in the NT for the following reasons:

**Traffic** – The onshore shale gas industry requires a lot of vehicular road traffic. Each well requires an average of 2,680 one-way truck trips, not counting worker transport<sup>21</sup>. With an estimated total of 67,343 wells proposed Territory-wide by ACOLA<sup>22</sup>, and 1,150 wells proposed for the Beetaloo Sub-

http://www.mde.state.md.us/programs/LAND/mining/marcellus/Documents/Appendix C-Roads ad Traffic.pdf

https://www.acola.org.au/PDF/SAF06FINAL/Frogtech Shale Gas Geology and Risks%20Jan2013.pdf

<sup>&</sup>lt;sup>1</sup> https://nt.gov.au/environment/animals/threatened-animals

<sup>&</sup>lt;sup>2</sup> https://nt.gov.au/ data/assets/pdf file/0005/205475/northern-quoll.pdf

<sup>&</sup>lt;sup>3</sup> https://nt.gov.au/ data/assets/pdf file/0006/205476/golden-backed-tree-rat.pdf

<sup>&</sup>lt;sup>4</sup> https://nt.gov.au/ data/assets/pdf file/0018/206361/australian-painted-snipe.pdf

<sup>&</sup>lt;sup>5</sup> https://nt.gov.au/ data/assets/pdf file/0019/206353/gouldian-finch.pdf

<sup>&</sup>lt;sup>6</sup> https://nt.gov.au/ data/assets/pdf file/0017/205505/golden-bandicoot.pdf

<sup>&</sup>lt;sup>7</sup> https://nt.gov.au/ data/assets/pdf file/0005/376133/carpentarian-antechinus.pdf

<sup>&</sup>lt;sup>8</sup> https://nt.gov.au/ data/assets/pdf file/0006/206466/floodplain-monitor.pdf

<sup>9</sup> https://nt.gov.au/ data/assets/pdf file/0010/376138/ghost-bat-nt.pdf

<sup>&</sup>lt;sup>10</sup> https://nt.gov.au/ data/assets/pdf file/0016/205504/brush-tailed-rabbit-rat.pdf

<sup>11</sup> https://nt.gov.au/ data/assets/pdf file/0007/373543/carpentarian-grasswren.pdf

<sup>12</sup> https://nt.gov.au/ data/assets/pdf file/0019/205525/common-brushtail-possum.pdf

<sup>&</sup>lt;sup>13</sup> https://nt.gov.au/ data/assets/pdf file/0017/205514/great-bilby.pdf

<sup>14</sup> https://nt.gov.au/ data/assets/pdf file/0020/206354/grey-falcon.pdf

<sup>15</sup> https://nt.gov.au/ data/assets/pdf file/0019/206461/mitchells-water-monitor.pdf

<sup>&</sup>lt;sup>16</sup> https://nt.gov.au/ data/assets/pdf file/0004/376168/northern-shrike-tit.pdf

<sup>&</sup>lt;sup>17</sup> https://nt.gov.au/ data/assets/pdf file/0009/373554/painted-honeyeater.pdf

<sup>&</sup>lt;sup>18</sup> https://nt.gov.au/ data/assets/pdf file/0020/205517/pale-field-rat.pdf

<sup>&</sup>lt;sup>19</sup> https://nt.gov.au/ data/assets/pdf file/0014/206402/plains-death-adder.pdf

<sup>&</sup>lt;sup>20</sup> https://nt.gov.au/ data/assets/pdf file/0017/206360/princess-parrot.pdf

<sup>&</sup>lt;sup>21</sup> Maryland Department of the Environment, p. 3,

<sup>&</sup>lt;sup>22</sup> Australian Council of Learned Academies (ACOLA), Potential Geological Risks Associated with Shale Gas Production in Australia, p. 27,

basin in your Interim Report<sup>23</sup> (the draft Final Report was uncertain on number of wells), fracking will dramatically increase the number of trucks on our roads. This traffic poses a grave danger to our wildlife and many will be injured or killed, reducing biodiversity and endangering sustainable population levels. As most of the traffic will be travelling to remote areas, who will rescue these accident victims and orphans so they aren't left to suffer and die? The dramatic increase in injured and orphaned wildlife caused by fracking traffic will be more than our wildlife carers will be able to manage with their current resources.

**Flares** – Flares have been found to have catastrophic consequences for wildlife, for example over 7,500 birds where incinerated in one night by a gas flare in Saint John, Canada<sup>24</sup>, and the Conoco-Phillips Darwin LNG flares at Wickham Point have injured and killed many birds and bats<sup>25</sup>. Industrialised shale gasfields and their flares would pose a serious threat to Territory wildlife.

**Land clearing** – Clearing for seismic lines, roads, pipelines, workers accommodation, well pads, and other infrastructure reduces the habitat that wildlife need to survive. It reduces the availability of food, nesting materials, shelter, and increases their risks of predation. Small mammal decline is already a serious issue in the Northern Territory<sup>26</sup>, and the land clearing required for fracking will make this situation worse.

**Habitat fragmentation** – Land clearing, seismic lines, roads and pipelines act as barriers to wildlife movement. This impacts their ability to migrate, find mates, and move to fresh sources of food and water. This in turn leads to a loss of biodiversity.

**Water contamination** – Fracking has caused water contamination and been banned in many other parts of the world<sup>27</sup>. A threatened fish species and 'all visible life forms died' when Acorn Fork Creek in Kentucky was contaminated by a fracking spill<sup>28</sup>, and kangaroos and other wildlife have drowned in water storage areas<sup>29</sup>, to name just two of many documented examples of how fracking and water contamination threatens our wildlife. Santos has already contaminated an aquifer<sup>30</sup> and parts of the Pilliga Forest<sup>31</sup> in NSW, they must be banned from fracking in the Northern Territory.

<sup>&</sup>lt;sup>23</sup> The Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, Interim Report, p. 44, https://frackinginguiry.nt.gov.au/?a=437497

<sup>&</sup>lt;sup>24</sup> CBC News, Probe of 7,500 bird deaths at gas plant continues <a href="http://www.cbc.ca/news/canada/new-brunswick/probe-of-7-500-bird-deaths-at-gas-plant-continues-1.1859713">http://www.cbc.ca/news/canada/new-brunswick/probe-of-7-500-bird-deaths-at-gas-plant-continues-1.1859713</a>

<sup>&</sup>lt;sup>25</sup> Conoco Phillips Darwin LNG Operations Environmental Management Plan, p. 87, http://www.conocophillips.com.au/sustainable-development/environment/Documents/DLNG Ops Environmental Mgmt Plan.pdf

<sup>&</sup>lt;sup>26</sup> Ecological Society of Australia, Northern Australia's vanishing mammals, <a href="https://www.ecolsoc.org.au/hot-topics/northern-australia%E2%80%99s-vanishing-mammals">https://www.ecolsoc.org.au/hot-topics/northern-australia%E2%80%99s-vanishing-mammals</a>

<sup>&</sup>lt;sup>27</sup> Food and Water Watch, List of Bans Worldwide, <a href="https://keeptapwatersafe.org/global-bans-on-fracking/">https://keeptapwatersafe.org/global-bans-on-fracking/</a>

<sup>&</sup>lt;sup>28</sup> New Scientist, Fracking Chemical Leak Kills Threatened Fish,

https://www.newscientist.com/article/mg21929332-300-fracking-chemical-leak-kills-threatened-fish/

<sup>&</sup>lt;sup>29</sup> The Sydney Morning Herald, Pilliga contamination: Santos to be prosecuted,

 $<sup>\</sup>frac{http://www.smh.com.au/environment/weather/pilliga-contamination-santos-to-be-prosecuted-20130613-205rq.html}{}$ 

<sup>&</sup>lt;sup>30</sup> The Sydney Morning Herald, Santos Pilliga project: Coal seam gas waste water spillage causes alarm, <a href="http://www.smh.com.au/nsw/santos-pilliga-project-coal-seam-gas-waste-water-spillage-causes-alarm-20140328-35ong.html">http://www.smh.com.au/nsw/santos-pilliga-project-coal-seam-gas-waste-water-spillage-causes-alarm-20140328-35ong.html</a>

<sup>&</sup>lt;sup>31</sup> ABC News, Santos fined \$52,500 for NSW pollution breach, <a href="http://www.abc.net.au/news/rural/2014-01-10/santos-fine/5194320">http://www.abc.net.au/news/rural/2014-01-10/santos-fine/5194320</a>

**Water depletion** – Shale gas fracking on average requires between 13.7 to 23.8 million litres of water per frack<sup>32</sup> with each well being fracked multiple times. Aquifer depletion leads to reduced spring and river flows. Our wildlife's survival depends on the water in springs, creeks and rivers, especially in our dry season and arid areas.

**Tourism** – The Northern Territory's wildlife is one of the key attractions for tourists, especially fishermen, photographers and twitchers. The loss of amenity caused by of an increase in road kill and the decline in our wildlife populations could discourage them from visiting the NT.

Our wildlife lives throughout the Northern Territory, especially in our remote areas. Fracking poses serious risks to our wildlife and may bring some species to the brink of extinction. It is for this reason that the entire Northern Territory should be declared a 'no go zone' to all shale gas fracking activities with a Territory-wide fracking ban.

Yours Sincerely,

Gypsy Cass	
Phone:	
Email:	

<sup>&</sup>lt;sup>32</sup> Environmental Science & Technology, Water Footprint of Hydraulic Fracturing, http://pubs.acs.org/doi/pdf/10.1021/acs.estlett.5b00211