Dr Jennifer Marohasy PO Box 692 NOOSA HEADS Q. 4567 Tel. 041 887 32 22

25th March 2014

Senator the Hon Simon Birmingham Parliamentary Secretary to the Minister for Environment Senator for South Australia

Dear Simon

Re: Groundhog Day: Bureau of Meteorology: Temperature Records 1850-1910

Groundhog Day is an American comedy in which a TV weatherman finds himself in a time loop. I feel it is a little bit like this with questions to the Bureau of Meteorology. Regardless of the questions asked, they provide the same answers. A problem with these answers from the Bureau is that they lack fidelity to evidence and context.

The only way this loop might be broken, is if you, as the Parliamentary Secretary with responsibilities for the Bureau, or Greg Hunt as the responsible Minister, take the time to consider the questions I have asked and the logic of the responses provided by the Bureau.

In my letter to Minister Hunt of 4th March 2014, I specifically draw attention to the Bureau's claim that pre-1910 temperature data is unreliable, and point out that this is incongruous and inconsistent with the Bureau providing the Climatic Research Unit at the University of East Anglia with temperature data for Australia back to 1850 from which a global average temperature is calculated. In short, how can we have a reliable global average temperature back to 1850, if there is only reliable data for Australia from 1910?

The reality is that there is reliable temperature data for many Australian localities back to 1850, and for localities in Western Australia back to 1880. But inclusion of this data into the official Australian temperature record would likely show that the years of the Federation Drought (1896 to 1902) were as hot, or hotter than temperatures now.

I believe it is incumbent on you as the Parliamentary Secretary to the Minister for Environment to seek genuine answers to the following questions, rather than dismiss them as you have in your letter to Dr Dennis Jensen MP of 20th March 2014, by recycling a letter to me from Neil Plummer of the Bureau of Meteorology, this time dated 17th January 2014. In particular, Mr Plummer was disingenuous in his answer to question 1 and failed to answer questions 2 and 3.

Q1. Could the Bureau explain why it uses 1910 as the start date for the official temperature record rather than a year such as 1860, given there was a large amount of reliable temperature data available from the mid 1800s?

Q2. Further to 1, if the pre-1910 data is not suitable for official domestic use, can the Bureau explain why it finds it suitable enough to provide this data for generation of a global annual

mean temperature anomaly back to 1850?

Q3. Could the Bureau please provide a list of the actual stations used to calculate the 2013 average mean temperature anomaly, the specific databases and time intervals applied to each of these stations, as well as the adjustments that have been made to the raw data?

There are an additional four questions, and supporting information in my letters to Greg Hunt of 4th March 2014 and my letter to Dennis Jensen of 23rd February 2014. In particular I detail some of the temperature data available from 1860 to 1910 with particular reference to the work of Charles Todd.

Neither of these letters provides information on temperature records for Western Australia, a locality specifically mentioned in your letter to Dr Jensen of 20th March, 2014. So I add here that there are records for Geraldton, Rottnest, Bunbury, York and Albany from 1880 and a further ten regional centers in Western Australia were recording official temperature data by 1895. In short, is also incorrect of the Bureau to suggest that there is little data available prior to 1910 for the western half of Australia.

As I stress in my letters to Dr Jensen and Minister Hunt, it would be of more practical value for the ordinary Australian, and Australian industry, if the Bureau could provide reliable long-term records for individual localities, rather than a contrived national average from 1910 based on adjusted and homogenized records.

Kind regards Dr Jennifer Marohasy Adjunct Research Fellow Central Queensland University

Copy to: Dr Dennis Jensen MP, Federal Member for Tangney

Links:

Letter to Minister Hunt with questions for the Australian Bureau of Meteorology: http://jennifermarohasy.com/questions-for-the-australian-bureau-of-meteorology/

Response from Neil Plummer, Australian Bureau of Meteorology and other correspondence: http://jennifermarohasy.com/correspondence/