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Sunday, March 11, 2012 (Amended March 12: Typographical error 1838 corrected to 1938 on page 5)

Jonathan Holmes Media Watch Host mediawatch@yourabc.net.au

Copy to Mark Scott, Managing Director, ABC

Dear Mr Holmes

Re: Media Watch Interest in the Rivers Need Estuaries Campaign

Media Watch claims to not question my right to speak out on the need to restore the Murray River's estuary, but your very line of questioning suggests that I am misleading the Australian public on the important issue of water reform. Indeed, the implication is that I am but a stooge for vested interests.

It appears Media Watch is contemplating asserting or implying that my professional judgement and integrity as a scientist has been influenced or corrupted by personal financial gain. Accordingly, I have sought legal advice on the matter, and include sections quoted from my solicitor's letter:

"Material will be defamatory if it could:

- 1. injure the reputation of the individual by exposing them to hatred, contempt or ridicule;
- 2. cause people to shun or avoid the individual; or
- 3. lower the individual's estimation by right thinking members of society.

"Any published material whereby a person is likely to be injured in their trade or profession would certainly fall within this scope. I have no doubt that any professional scientist in Australia would have a cause of action for defamation if published information suggested their professional standards and integrity had been compromised by financial incentives. The mere fact that a specific entity has contributed to enable the scientific investigation to be undertaken does not, in itself, provide any proof whatsoever that a scientist has engaged in unethical conduct.

"A plaintiff in a defamation claim may elect for the proceedings to be tried by jury, and damages for non-economic loss are capped at \$285,000. An award of aggravated damages can also occur where the defendant's conduct is improper or unjustifiable. Therefore, in a case where defamatory remarks are substantiated in a national television broadcast, total damages could be very significant.

"Additionally, in certain circumstances, defamation may also be a criminal offence under the *Criminal Code Act 1899* (Qld). Criminal defamation occurs when a person publishes defamatory material knowing it to be false, or without having any regard as to whether it is true or false, and in publishing the material intends to cause serious harm to another. The maximum penalty for this offence is three years imprisonment."

On Friday afternoon your office phoned me, and then sent me a series of questions by email, asking for an immediate response on the basis you intend to run a story about me on Monday. My partner, Dr John Abbot, a scientist and lawyer, phoned your office seeking an undertaking that you would not be forming your story until after you had considered my evidence, but came away with the distinct impression that the story had already been written.

I trust this is not the case and that you will come to realize, after reviewing all the evidence, that it is Media Watch who may indeed have been misled by vested interests. These vested interests are concerned that my persistence with explaining the truth about the Murray River's estuary, in particular the natural history of the Lower Lakes, could result in the unraveling of a A\$10 billion government plan and expose serious omissions and inconsistencies in key scientific documents that underpin both South Australian and Commonwealth government policy.

My professional training and current occupation is as a research scientist. I have a PhD from the University of Queensland. I currently undertake scientific research projects at Central Queensland University. Current projects include a reassessment of the geomorphological and diatom evidence for the evolution of the Lower Lakes to be published in the near future.

My responses to your specific questions follow:

<u>Media Watch</u>: Do you accept that the vast majority of recognised experts on the natural history and hydrology of the Lower Lakes disagree with your conclusion that they were estuarine immediately prior to the erection of the Murray Mouth barrages, or at any time in the past 2000 years?

<u>Jennifer Marohasy</u>: No. The relevant scientific literature, as published in peer-reviewed journals by recognised experts, indicates that the Lower Lakes were estuarine prior to the erection of the Murray Mouth barrages.

The following quote from a scientific paper published in the journal *Marine Geology* by Professors R.P. Bourman, A.P. Belperio, C.V. Murray-Wallace and N. Harvey, citing E. Barnett, seems to sum up the conclusion of these recognised experts:

"Originally a vibrant, highly productive estuarine ecosystem of 75,000 ha, characterised by mixing of brackish and fresh water with highly variable flows, barrage construction has transformed the lakes into freshwater bodies with permanently raised water levels; freshwater discharge has been reduced by 75% and the tidal prism by 90% (Bourman and Barnett, 1995; Harvey, 1996)."¹

Professor John Cann² and co-workers have studied fossil foraminifera – tiny protozoa with shells of calcium carbonate preserved in the sediments of the Lower Lakes – concluding that the changes in the foraminiferal assemblages over the most recent 2,000 years indicate a general trend of increasing marine influence, up until the construction of the barrages that now block the natural ebb and flow between the Lower Lakes and Southern Ocean.

Professor Peter Gell writing in the recently published *The Sage Handbook of Environmental Change*³ has commented that the natural state of the Lower Lakes was tidal, that the lakes have been incorrectly listed as freshwater in the International Ramsar Convention, and that until their natural estuarine character is recognised it will be difficult to reverse the long-term decline in their

¹ Marine Geology 170:141-168

² Cann et al., *Quarternary Research* 53:378-391

³ See Chapter 27. Human Impacts on Lacustrine Ecosystems, page 595

ecological health.

Geoscience Australia classifies the Lower Lakes as part of a wave dominated barrier estuary with positive annual hydrodynamics.⁴

Media Watch: Can you point us to any recognised scientific expert who supports your view?

<u>Jennifer Marohasy</u>: I have already answered this question. But I would like to add some information.

My recent report, *Plugging the Murray's Mouth: The Interrupted Evolution of a Barrier Estuary*⁵, focuses on the geomorphology of the Murray River's estuary. Professors Bourman and Murray-Wallace as quoted in my answer to your previous question, are recognised scientific experts on coastal geomorphology. What they have published in the relevant scientific literature is consistent with my contention that Lake Alexandrina is a Holocene formation and was the central basin of a wave-dominated barrier estuary until construction of the barrages.

In my report I explain that while a rational person, familiar with the available evidence, would likely come to this same conclusion, it is in fact the policy of the South Australian and Commonwealth governments and the Murray Darling Basin Authority to deny this history – to deny this science.

Thus according to the Murray Darling Basin Authority:

"Microscopic analysis of single-celled algae (Diatoms) also provides evidence that in the 7,000 years since they were formed, the Lower Lakes would have been mainly fresh with rare seawater inflows."⁶

And according to the South Australian government:

"The diatom record in lakebed sediments provides strong evidence that the Lower Lakes have been predominantly freshwater for the last 7,000 years and that seawater ingressions, when they did occur, did not extend north of Point Sturt."⁷

In fact two of the earliest maps of the Lower Lakes, drawn in 1838 and 1844, include comment on water quality and clearly show that waters north of Point Sturt were brackish consistent with seawater ingressions (see Maps 1 and 2 in supplementary material).

Relying almost exclusively on a single quote in the executive summary of a report commissioned by the South Australian Department of Environment and Heritage prepared by Jennie Fluin, Deborah Haynes and John Tibby, it has become popular for environmental activists, science managers and government bureaucrats to claim:

⁴ Ryan *et al.*, Conceptual Models of Australia's Estuaries and Coastal Waterways: Application for Coastal Resource Management, Geoscience Australia Record 2003/09. See appendix D.

⁵ Available online at <u>http://jennifermarohasy.com/wp-content/uploads/2012/02/Plugging-the-Murray-Rivers-Mouth-120212.pdf</u>

⁶ Fact Sheet: All About the barrages. Available online at <u>http://download.mdba.gov.au/proposed/FS_barrages.pdf</u>

⁷ Securing the Future: A Long-term plan for the Coorong, Lower Lakes and Murray Mouth, June 2010, Government of South Australia. (13mb pdf)

*"There is no evidence in the 7,000 year record of substantial marine incursions into Lake Alexandrina."*⁸

Following the release of my report the South Australian State River Murray Minister Paul Caica said the idea that before the construction of barrages in 1940 the Lower Lakes were predominantly an estuarine environment "is a myth and not supported by science". He was quoted as saying:

"Science based on ... sediment deposited in the Lower Lakes tells us that they have been predominantly a fresh water environment for the last 7000 years."⁹

This claim implies that the modern pre-barrage Murray River estuary represents a steady-state that was formed *de novo* some time prior to 7,000 years, and which has remained essentially unchanged since. Such an interpretation denies geological and environmental reality, for the scientific literature clearly shows that Lake Alexandrina has a marine origin that dates back to a period of late Pleistocene and Holocene sea level rise (say over the last approximately 12,000 years). During this time the coastal sand barrier and related landward estuarine environments have evolved and changed naturally, including manifold changes in salinity in different parts of the estuarine complex.

Drs Fluin, Haynes and Tibby have published papers discussing the past history of lakes and wetlands based on the presence or absence of particular species of diatom – unicellular algae with bodies of silica – in sediment cores. But their claim that there is no evidence of substantial marine incursions is at odds with not only what we know about how Southern Australian estuaries evolved and now function, but also many studies published in reputable scientific journals including research papers authored by the same scientist, Drs Fluin, Haynes and Tibby.¹⁰ Indeed the claim is inconsistent with the specific diatom assemblage described in their published papers and also in their report to the South Australian government.¹¹

The Fluin *et al.* analysis of diatoms in sediment cores also ignores a large international scientific literature that shows that the majority of reported diatom species have a salinity tolerance in excess of 50 per cent seawater. It is difficult to understand why this critical fact was not discussed by these scientists in their report to government. Most of the diatom species are common in estuaries around the world including in Japan, China, India, Argentina, Brazil, Mexico, the United States, the UK, Portugal, Holland and Sweden.

The Murray Darling Basin Authority has measurements of salt levels in Lake Alexandrina (as measured from the Milang jetty) for the period immediately prior to the sealing of the barrages.

⁸ Fluin *et al.*, An Environmental History of the Lower Lakes and Coorong. Report Commissioned by the South Australian Department of Environment and Heritage.

⁹ Water must mix in the Lower Lakes, says new Murray-Darling report. Adelaide Advertiser, February 24, 2012. Available online at <u>http://www.adelaidenow.com.au/news/south-australia/water-must-mix-in-the-lower-lakes-says-new-murray-darling-report/story-e6frea83-1226281052851</u>

¹⁰ For example in Gell *et al.* 2005 (see *River Research and Applications* 21:257-269 that included Drs Tibby and Fluin as authors), the waters of Lake Alexandrina are described as particularly salty 1,000 to 2,000 years ago. Somewhat at variance with this conclusion, in Fluin *et al.* 2007 (see *Hydrobiologia* 591:117-134 that was co-authored by Haynes and Tibby), it is concluded that between 7,000 years and 2,300 years ago, a strong marine influence was present in Lake Alexandrina.

¹¹ For example, in their report to government, Drs Fluin, Haynes and Tibby list the species *Staurosirella pinnata* as a dominant species from the bottom of a Lake Alexandrina sediment core taken near where the river enters the lake and therefore indicative of the lake being "fresh to brackish" for 7,000 years. But in a more recent paper also published by Drs Fluin, Haynes and Tibby, this same diatom species is listed as common in the very salty Coorong with mention that it has a broad salinity tolerance (see Hayne *et al.* 2011, *Journal of Paleolimnology* 46: 543-560)

This data shows that salinity levels fluctuated and, for example, exceeded 38 per cent seawater level for a period of six months between October 1938 until May 1939 consistent with Lake Alexandrina being part of an estuary. This data also shows that after the barrages were sealed the lakes became permanently fresh. Why has this information been omitted from reports to government?

That the waters of Lake Alexandrina were often brackish during the early period of European settlement, but before the construction of the barrages, is also consistent with newspaper reports from this period and from early maps – as detailed in supplementary information provided at the end of this letter.

<u>Media Watch</u>: It is a central part of your argument that the removal of the Murray mouth barrages would obviate the need to increase environmental flows of fresh water into the lower lakes?

Jennifer Marohasy: Yes. And if I may explain why:

During the recent protracted Millennium drought, water levels in Lake Alexandrina fell precipitously from 0.85 metres above sea level to -1.10 metres below. There was simply not enough water in upstream water storages to keep both Lake Alexandrina and the adjacent Lake Albert supplied with adequate water notwithstanding the Snowy diversions and strictly limited allocations for irrigation during the drought.

To deal with this problem of low lake level and concomitant declining water quality, the South Australian government could have opened the 593 gates within the 7.6 km wide barrage system to allow the ingress of Southern Ocean waters. Instead the South Australian government chose to keep the gates shut tight. This choice was not discussed or reported in the national media in any way. Instead, during the drought, television cameras focused on either the receding lake waters or on the sand dredge working to keep the Murray's mouth open, conveniently avoiding images of the massive man-made sea dykes (known as barrages) that inhibit the cleansing and proper functioning of the former natural estuary system. Media Watch, amongst other public affairs programs, was apparently asleep on this issue.

As soon as the next floodwaters arrived, in the spring of 2010, the government opened the gates to let excess freshwater out.

Melbourne's Yarra River empties into Port Phillip Bay. We don't expect the Yarra River to keep Port Phillip Bay full of freshwater. But we do expect the Murray River to keep Lakes Alexandria and Albert full of freshwater, even during drought. This is a nonsense that has been pounded into our brains, but nevertheless repetition of such an untruth does not make it true.¹²

Interestingly, the Yarra River has 57 per cent of its natural flow left within the river, i.e. available to the environment. Currently the Murray has a similar level of water extraction, with 58 per cent remaining for the environment.¹³ In June 2011, the Yarra was short-listed for a prestigious international environmental award, while the Murray River was being described by activist group, GetUp!, as on the brink of ecological collapse because of inadequate environmental flow.

¹² For more information listen to my address to the Sydney Institute on February 8, 2012 <u>http://www.thesydneyinstitute.com.au/podcasts/</u> or read the full text here <u>http://jennifermarohasy.com/wp-content/uploads/2012/03/Murray-Estuary_Sydney-Institute-Paper-2.pdf</u>

¹³ see MDBA, Guide to the Proposed Basin Plan, Volume 1, page XXIII and Victorian Department of Sustainability and Environment, Central Region Sustainable Water Strategy, page 22

The Murray Darling is a large catchment and the upper Murray and Murrumbidgee are snow fed, so most years the river system can fill Lakes Alexandrina and Albert with freshwater. On average over the 42 years from 1968 to 2010, 5,920 gigalitres a year of freshwater has flowed over Lock 1 which is the last lock on the Murray River before the Lower Lakes, (see Map 3 with the supplementary information).¹⁴ That's about 11 Sydney Harbour's full of freshwater each year flowing into the Lower Lakes.

<u>Media Watch</u>: Obviously this would be in the interests of irrigators and water-rights entrepreneurs upstream.

<u>Jennifer Marohasy</u>: You've made a statement. I am not sure what the question is or that I have the necessary expertise to respond. Except to perhaps comment that it is in the interests of all Australians for the Murray River's estuary to be restored and for the Lower Lakes to be allowed to fill with seawater when the next drought impacts the Murray Darling basin.

<u>Media Watch</u>: In June last year the Adelaide Advertiser and The Land identified Mr Johnny Kahlbetzer of Twynam Agricultural Group as a "supporter" of the Myth of the Murray Group. Was he a financial supporter?

<u>Jennifer Marohasy:</u> Yes. Johnny Kahlbetzer was a financial supporter of the Myth and the Murray Group and this has been declared at the Myth and the Murray website and to anyone who has asked.¹⁵

<u>Media Watch:</u> Is he, to your knowledge, a financial supporter of the Australian Environment Foundation? Are any other irrigators and water-rights entrepreneurs financial supporters of the AEF?

<u>Jennifer Marohasy:</u> To my knowledge Mr Kahlbetzer is not a financial supporter of the Australian Environment Foundation. I am not privy to the membership or accounts of the Australian Environment Foundation. I would hope there were some irrigators who were financial supporters. I understand there are irrigators who have been financial supporters of the Australian Conservation Foundation.

<u>Media Watch:</u> Have you personally received financial support for your scientific work from any such interested parties?

<u>Jennifer Marohasy</u>: No. I would have liked to receive financial support for my scientific work from such interested parties. Over the last few years my scientific interest in the Lower Lakes has been mostly self-funded. To be clear, Mr Kahlbetzer provided financial support for me to visit Canberra and Adelaide last year as the spokesperson for the Myth and the Murray Group. I declared this support when I met with politicians including through the official lobbying register. Mr Kahlbetzer is not, and has not been interested in supporting my scientific research.

Media Watch: If so, should such support not have been declared in the relevant publications?

<u>Jennifer Marohasy:</u> If such support were provided it would have been declared in the relevant scientific publications.

¹⁴ Values calculated from daily flow data, provided by the Murray Darling Basin Authority

¹⁵ see <u>http://www.mythandthemurray.org/sponsors/</u>

The Australian Environment Foundation commissioned my recent report on the geomorphology of the Murray River's estuary. I declared this in the report's acknowledgements.

<u>Media Watch</u>: Have you received support from other organisations (other than your university and the normal grant-giving academic bodies), such as the IPA or the Heartland Institute?

<u>Jennifer Marohasy</u>: I have never been paid by the Heartland Institute. I worked for the IPA as a salaried employee on contract from 2003 until 2009. During this time I attended a conference on climate change organized by the Heartland Institute.

I have recently published scientific papers including on risk assessment, rainfall forecasting using artificial intelligence and climate change.¹⁶ This work was financially supported by the B. Macfie Family Foundation and is acknowledged as such in the publications. The B. Macfie Family Foundation was established and is run by a Perth-based philanthropist who is concerned that public policy should be evidence-based.

<u>Media Watch</u>: In your recent opinion columns in The Land and you appear to make no declaration to your readers about your long-standing history of public campaigning on the Murray. Do you think you have any obligation to do so?

<u>Jennifer Marohasy:</u> No. My long-standing history of public campaigning on the Murray has grown in part from my arrangements with The Land newspaper. In particular, since 2004 I have written a fortnightly column for The Land and been paid a modest amount for each column. This money has at times over recent years been my only reliable and regular source of income.

I have tried to always write well-researched pieces on issues of relevance to The Land readers. As a consequence over this time I have researched water-related issues. From this research I have come to the considered, though unpopular opinion, that the current \$10 billion dollar plan for water reform in the Murray Darling will deliver very little if any environmental benefit, while significantly reducing the capacity of irrigation farmers in the Murray Darling to produce food when there is adequate water in reservoirs.

<u>Media Watch</u>: As a founding member and past chair of the Australian Environment Foundation, do you feel The Land's description of you as "an environmental writer based in Rockhampton, Queensland" is an adequate explanation of your interest in this issue?

<u>Jennifer Marohasy</u>: The statement is accurate but certainly not a complete description of my interest in this issue. I am a scientist with a PhD from the University of Queensland with interests in a range of important environmental issues. My current position is as a research fellow with Central Queensland University working in collaboration with other recognised research scientists. For example, our recent publication in the journal *Human and Ecological Risk Assessment* examines the impact of the herbicide Diuron on mangroves. Another paper recently accepted by the journal *Advances in Atmospheric Sciences* examines the application of artificial neural networks to forecasting rainfall in Queensland. One of our current major interests is the examination of the evidence relating to changes in salinity levels in Lake Alexandrina, South Australia, over the last few thousand years. We are currently finalizing another scientific paper addressing this issue in depth.

¹⁶ My publications are listed online here: <u>http://jennifermarohasy.com/publications/</u>

I also write for The Land newspaper, with my column published every fortnight since April 2004. It is important for active scientists to communicate with the general public as well as with their fellow professional scientists.

Concluding Comments

Should you decide to proceed on Monday with your story, then I request that this letter be posted in full at your website.

I also ask that you note the position of my main research collaborator, who is Dr John Abbot. Any suggestions or imputations from anyone that our current research work on the natural history and geomorphology of Lake Alexandrina is somehow tainted or corrupted by improper pressures or influences will inevitably led to legal action.

Dr Abbot holds degrees in science from Imperial College, London, the University of British Columbia, McGill University and also holds law degrees from the University of Queensland. He has more than 120 published papers in international scientific journals.

Both Dr Abbot and I encourage and welcome honest and rational debate on scientific issues related to the environment. This includes issues related to the Murray Darling and the Great Barrier Reef. It is unfortunate that we live in an era where *ad hominem* assaults commonly replace scientific debate, particularly in relation to environmental issues.

We would be delighted to participate in programs sponsored by the ABC exploring these issues if presented in an informative and balanced way. However, any personal attacks on my scientific professional integrity and, by implication, my current scientific collaborators, will not be tolerated and will lead to an action in defamation.

Yours sincerely

Dr Jennifer Marohasy Biologist

Supplementary information, including maps and newspaper quotes, can be found on the following pages.

Supplementary Information

Map 1.

A map of Lake Alexandrina drawn by John Arrowsmith in 1838 based on reports of water quality from Charles Sturt. The map shows the lake contained salt water, brackish water and freshwater and this is consistent with it being part of an estuary.



This map has been copied from a zoom here <u>http://nla.gov.au/nla.map-rm2633</u>

Map 2.

A map drawn in 1844 of the Lower Lakes from the South Australia Company traced by William Wishart. The map describes the waters at the river end of Lake Alexandrina as brackish consistent with the lake being part of an estuary. The map identifies the Murray River's mouth as being near Wellington.



This map is reproduced from http://www.samemory.sa.gov.au/site/page.cfm?u=917&c=5611

Map 3.

This map drawn in 2012 by Susan Myers from <u>www.lakesneedwater.org</u> shows key structures that currently impact the Lower Murray including the sea dykes and lock 1.



Newspaper Articles.

The National Library of Australia's digitized newspaper section on South Australia includes newspaper articles providing an insight into water quality as reported at that time. Following are a selection of clippings providing anecdotal evidence that Lake Alexandrina was estuarine.

"The third effect expected from this embankment cause is the supply of fresh water at the Goolwa, at least every ebb-tide. The want of permanent fresh water has been the greatest hindrance towards the advancement of this important township. Sometimes the river here is fresh for months, sometimes the reverse, particularly in dry seasons like that of last year; often it alternates from day to day. Numerous wells have been sunk with one result — salt, salt, salt. In 1855 the bulk of the Goolwa people were dependent on one well in Section 2207, some even travelling three and four miles to it. Latterly fresh water has been obtained in Section 2205, but whether the supply be copious or not has yet to be ascertained. Certainly a large sum of money has been spent in boring for fresh water in the Goovernment township, but hitherto without success. The current running out at the Towadjeree channel has been frequently observed to be fresh, whilst at the Goolwa the water was salt. "

June 11, 1856. South Australian Register Available online at <u>http://trove.nla.gov.au/ndp/del/article/49749387</u>

"There is an immense body of fresh water lost in the Murray mouth during a year, and if this were dammed back and utilized properly by cultivators the 100000 acres or more in that locality could be made to support a very large and prosperous population. The effect upon the neighbouring townships could not but be beneficial, and might compensate fully for the loss of trade through the 'tapping' of the Murray by the railways above. The steamers upon the Murray could not be injured, provided there is a means allowed for escape through the mouth if they wish to leave the river. Certainly no residents upon the lakes or rivers could complain if the bitter, salt, and useless fluid of the lakes for nine months of the year ware changed to a permanent and plentiful supply of fresh water fit for all purposes to which fresh water can be applied."

February 12, 1887. South Australian Register

Available online at http://trove.nla.gov.au/ndp/del/article/46084274

"The fishing at Goolwa being for salt water fish was different from that higher up the river, where the water was fresh. From December to January the fish were found with roe in them, the spawn being fully formed. He did not think that sea fish deposited their spawn in the still waters of the river and its estuaries, though they might resemble salmon in this respect. It was his opinion that these fish deposited at sea; where, he could not say. He thought that there were quite as many fish about now as three years ago, because though they might not have been caught they had been seen. For his own part he fished chiefly for butterfish and bream in the wide waters of the lake when the sea went up. When this was the case the cod went up stream, as they do not like salt water."

May 4, 1892. The Advertiser

Available online at http://trove.nla.gov.au/ndp/del/article/25327167

"Sir—It is clear from all the remarks made in Parliament regarding the Murray locks and settlement that this is a losing game. If engineering advice was wrong about conditions up river what reliance can be placed on the levels predicted at the mouth, where so many influences interfere with the natural flow? Low rivers are followed by high. During low rivers the mouth, by forces from the ocean, is sanded to a level to cope with that flow. This barrage of sand holds the high river back and floods all the lower levels, until there is force enough from the rising to wash the barrage to sea. If this barrage is held secure by heavy winds from the sea, the sea's pressure still causes higher flooding. No one can say just where the level is to stop. The proposed barrages must, under the best conditions, hold the level higher, to say nothing of what state they -will be in after five years' construction. It is known that the Murray and the Murrumbidgee have salty flats for hundreds of miles, and saline water must be flowing to the river bed at all stages. Little is noticed in times of high river, but at low levels it is sufficient to spoil the water. To say the flushing from the locks will overcome this is falsified by another statement, that saline water is prominent in deep holdings. Nothing will remedy these conditions but the natural flooding of the river. To stop this, and hold the water for what is claimed better uses will ruin the pioneers. They have every right to complain but I would ask them to think before they advocate what might prove a greater danger than the present one."

August 7, 1933. The Advertiser

Available online at http://trove.nla.gov.au/ndp/del/article/46992403

Ends.