

## Climate Health WA Inquiry

### About your submission

Are you responding on behalf of an organisation or group?

No

Yes

If yes, please identify the organisation: Friends of Australian Rock Art (FARA)

### Your contact details

The following information will not be published without your permission but enables the Inquiry to contact you about your submission if required.

First name

██████

Surname

██████

Address

████████████████████

Phone

██████████

Email

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### Publication of submissions

Submissions will be published with the name of the submitter unless otherwise indicated below. Do you consent to be identified in the published submission?

Yes, I / my organisation agree to be identified

No, I / my organisation request to remain anonymous

### Terms of Reference

You are encouraged to address at least ONE of the Terms of Reference as listed below. Please select which item/s you will address:

- 1. Establish current knowledge on the implications of climate change for health in Western Australia (WA) and recommend a framework for evaluating future implications.
- 2. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will protect the public from the harmful health impacts of climate change.
- 3. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will strengthen the preparedness and resilience of communities and health services against extreme weather events, with a focus on the most vulnerable in the community.

- 4. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will reduce the contribution of WA health services to climate change and other detrimental impacts.
- 5. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will enable WA Health services to implement change, including energy efficiency, to a more sustainable model.
- 6. Evaluate the likely benefits (health and wellbeing, social and economic) arising from climate change mitigation strategies, with a focus on WA health services.
- 7. Define the role of the Department of Health in leading public policy on climate change and health.
- 8. Recommend the Terms of Reference, scope and preferred methods for undertaking a climate change vulnerability assessment for the health sector.
- 9. Recommend the Terms of Reference, scope and preferred methods for developing a Climate Change Adaptation Plan for the health sector.

### Submissions response field

**Please type your response to the item(s) selected above into the field below. Alternatively you may provide your submission as a separate attachment (suggested maximum 5 pages).**

### **Friends of Australian Rock Art (FARA) submission to Climate Health WA Inquiry**

*(Due 30 August 2019)*

by Dr MA Ferland, Co-convenor, on behalf of FARA

#### **Introduction**

Friends of Australian Rock Art (FARA) welcomes this Department of Health (DoH) inquiry and its terms to review the current planning and response capacity of the WA health system in relation to the health impacts of climate change in this State. There are many aspects to the complex problems resulting from climate change and we advocate the need to immediately reduce the State's emissions of greenhouse gases (GHG) in order to lessen the individual health, social, environmental, economic, and cultural consequences of climate change.

**The very dramatic and worrying impacts of climate changes, both in Australia and around the world, directly impact health in each of these areas, in both the short and longer term:**

- 1) increased severity of droughts, floods, bushfires, cyclones, and coastal erosion
- 2) rising sea level is affecting almost all Australia's state capitals, port infrastructure and smaller coastal communities where mental health impacts likely

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will be greater (isolation)

3) tension between communities associated with water scarcity, food security and dwindling resources

4) shifting zones of the prevalence of diseases such as malaria and dengue; and

5) warming of the ocean which, together with extreme events, is causing major ecological impacts – besides being an environmental disaster, degradation of Ningaloo Reef will substantially impact WA's economy and local communities who rely on tourism.

As a state, WA should institute renewable energy policy that will allow for a planned transition and a net-zero emissions target by at least 2050 with an interim target of at least 60% on 2005 levels by 2030, in line with the science. We strongly encourage DoH to lobby other branches of State Government that this policy will save resources, human lives, and result in additional funding for climate change mitigation and adaptation.

FARA has long campaigned to highlight the impact of climate change on the environment, and especially the Aboriginal rock art of the Burrup Peninsula/Murujuga. However, we are also very interested in assuring the health of communities in this region (especially Dampier, Roeburne, and Karratha). We became particularly concerned when the then Premier stated in 2016 that the location of a Murujuga National Park facility was to be moved as a matter of public health, as the originally proposed site was located too close to industrial plants operated by Yara Pilbara (1.5 km away). However, Aboriginal Rangers, tourists, and workers at these plants and in nearby Dampier would obviously still be affected. In response to those concerns, we commissioned a report by Adelaide Exposure Science and Health at the University of Adelaide (2018, attached) relating to the health impacts of industrial emissions on the Burrup Peninsula. Their report found:

“The health impacts associated with these emission substances result from very short-term exposures (e.g. ten minutes). If of sufficient intensity, as suggested from the emissions data, the pollutants would result in severe health outcomes for people exposed, particularly for people with asthmatic or other respiratory conditions. Due to the nature of these inorganic pollutants, the consequences of such high-level exposure are severe and should not be underestimated by industry or government. It is important therefore to ensure

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exposure assessment captures these transient exposures in areas where people are resident, in order to direct mitigation measures.”

We hope that DoH will read their report and add it the Inquiry documents as well as another recent report by Black and Box. In their “Review of Yara Pilbara Nitrates Pty Ltd Commissioning Report (September 2017, attached) for the Technical Ammonium Nitrate Plant in Relation to Human Health” Black and Box present detailed relevant information and conclude:

“Evidence produced from the YPN Commissioning Report for the ammonium nitrate plant shows that numerous short-term emissions of nitrogen dioxide from the nitric acid plant stack are a continuing serious hazard to the health of humans within proximity of the plant ... The current WA Government has an obligation to ensure emissions from the ammonium nitrate plant are reduced to levels below those that endanger human health. The WA Government must insist that nitrogen dioxide emissions are continually monitored and controlled. All emissions exceeding 102.6 mg/m<sup>3</sup>, the maximum allowable in the YPN ammonium nitrate plant Works Approval (W4701/2010/1), must be reported to Government and acted upon to ensure the safety of people in the vicinity of the plant. Future breaches of this limit should result in closure of the plant.”

**These are some recommendations FARA encourages WA DoH to implement:**

1. A first step for DoH to achieve its stated aim of protecting the public from the harmful health impacts of climate change should be to consistently and actively link the climate crisis with its health impacts, including by articulating the need for immediate emissions reduction at the State level (both across high-emitting industry and State government, through support of transport and infrastructure projects). Sustainable development will inherently bring reduced emissions and improved health across the State and country. Toward this end, DoH should advocate for no further major fossil fuel developments in WA in order to more rapidly reduce emissions.
2. Similarly, DoH needs to strongly represent these climate-health links to other Government departments in order to create the intergovernmental cooperation that is required to develop and implement effective policies and strategies.

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3. DoH needs to spearhead a comprehensive mitigation and adaptation process to prepare WA communities for climate- impacts, which particularly focuses on remote communities and especially those with high proportions of Indigenous Australians. An editorial in the Medical Journal of Australia (Green et al., 2009, vol 190, no 1) concluded that “For Indigenous Australians, the “health of country” is inextricably linked with human health”. They present cogent and sobering examples of the need to immediately engage with Indigenous communities to develop priorities and strategies that will work. Of course, the need is great due to their already high incidence of communicable diseases and diseases of disadvantaged communities.

Indigenous populations are, and will continue to be, particularly hard-hit by increasing drought, floods, water shortages, etc, and we know that they are already extremely under-serviced and vulnerable for dealing with physical hardships, given the inequity and disadvantage they have

faced for decades. DoH should make it a matter of priority to advocate for remote communities, especially in the following ways:

- improve community housing to handle extreme heat/wind/rain events,
- help communities plan for and deal with increasing stresses on clean water,
- assist during and after climate events to manage and mitigate against anxiety and mental health concerns in a population that is already very vulnerable in these regards

4. DoH needs to show good example by setting a mandatory target for all health services to improve sustainability, reduce waste, and have net-zero emissions by at least 2050. These are not easy recommendations but we must approach the problems with the seriousness they require for equitable solutions to be achieved.

#### **Summary:**

The link between the climate crisis and health is direct and we applaud the WA DoH initiative to develop mitigation and adaptation strategies. Fundamentally, as the uncertainties of climate change unfold, for the health sector we need:

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1. strategies based on results of what has worked well previously, in Australia and elsewhere
2. research to fill knowledge gaps, so that we are better prepared for the health-associated impacts of the climate crisis
3. an emissions reduction policy that reflects the seriousness of the crisis we face
4. intergovernmental cooperation, at the State and Federal levels, to ensure that the best strategies and policies are brought to the people who need them most

**Some literature relevant to the Climate WA Health Inquiry:**

**Implications for Community Health from Exposure to Bushfire Air Toxics**, by Reisen and Brown, 2006, Environmental Chemistry 3(4) 235-243

<https://doi.org/10.1071/EN06008>

<http://www.publish.csiro.au/EN/EN06008>

**Beyond Bushfires: Community, Resilience and Recovery - a longitudinal mixed method study of the medium to long term impacts of bushfires on mental health and social connectedness**, by Gibbs et al., 2013, BMC Public Health volume 13, Article number: 1036.

<https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-13-1036>

**Post-traumatic stress disorder following disasters: a systematic review**, by Neria, Nandi, and Galea, 2008, Psychol Med, vol 38: 467-480.

<https://www.cambridge.org/core/journals/psychological-medicine/article/posttraumatic-stressdisorder-following-disasters-a-systematic-review/4D7C81052A8CCF01FD3DA2BA30A587A2>

**Disproportionate burdens: the multidimensional impacts of climate change on the health of Indigenous Australians**, by Green, King and Morrison, 2009, Medical Journal of Australia, vol 190, number 1, p 4-5.

[https://www.mja.com.au/system/files/issues/190\\_01\\_050109/gre11091\\_fm.pdf](https://www.mja.com.au/system/files/issues/190_01_050109/gre11091_fm.pdf)

“For Indigenous Australians, the “health of country” is inextricably linked with human health”

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**Trends in mental illness and suicidality after Hurricane Katrina**, by Kessler, Galea, Gruber, Sampson, Ursano, and Wessely, 2008, *Mol Psychiatry*, 13: 374-384.

<https://www.nature.com/articles/4002119>

**Climate Change and Rising Heat: Population Health Implications for Working People in Australia** by Hanna et al., 2010, *Asia-Pacific Journal of Public Health*.

<https://doi.org/10.1177/1010539510391457>

<https://journals.sagepub.com/doi/abs/10.1177/1010539510391457>

**SCIENCE, HEALTH AND MEDICINE**, ANU College of Health & Medicine

<https://earlytraumagrief.anu.edu.au/resource-centre/disasters-bushfire-resources>

### Attachments

The following documents were provided as attachments to the submission

- Adelaide Exposure Science and Health, University of Adelaide, 2018: "Burrup Peninsula Rock Art and local health concerns"
- "Review of Yara Pilbara Nitrates Pty Ltd Commissioning Report (September 2017) for the Technical Ammonium Nitrate Plant in Relation to Human Health" by John L Black and Ilona Box, March 2018

Please complete this sheet and submit with any attachments to: **Climate Health WA Inquiry**