

Climate Health WA Inquiry

About your submission

Are you responding on behalf of an organisation or group?

- No
 Yes

If yes, please identify the organization: Peron Naturaliste Partnership

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The following information will not be published without your permission but enables the Inquiry to contact you about your submission if required.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

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).

Background

The coastal zone is highly dynamic and has very high environmental, social and economic significance and value to Western Australia. The Peron Naturaliste region (from Point Peron in Rockingham to Cape Naturaliste in Busselton) has been identified as vulnerable to the impacts of coastal climate change in numerous studies, including the; Developing Flexible Adaptation Pathways for the Peron Naturaliste Region of Western Australia¹ and Australian Government's First Pass National Assessment². The region has low lying sandy coastal and shallow estuarine environments and has high residential, commercial, recreational and social values.

Climate change is affecting air temperature, rainfall, humidity, sea levels, ocean temperatures, and intensities and frequency of storm events. These changes will exacerbate existing coastal hazards and risks in the coastal zone and has the potential to have serious detrimental impacts on our communities. These impacts are likely to include loss of social values, changes in spread of mosquito vector borne diseases³ and other air, soil and water diseases, personal injury and loss of life. There are also threats to critical health infrastructure that is currently located or proposed to be placed in coastal hazard zones.

Climate change will also have impacts associated with loss of industries which rely on our waterways and coast, such as tourism, commercial and accommodation businesses and commercial fishing. This has subsequent impacts on the health and wellbeing of our communities.

¹ Damara WA. (2012). Coastal Hazard Mapping for Economic Analysis of Climate Change Adaptation in the Peron-Naturaliste Region (169-01)

² Department of Climate Change. (2009) Climate change risks to Australia's coast: a first pass national assessment. Australia Government, Canberra

³ Tong S, Bi P, Donald K, et al. (2002). Climate variability and Ross River virus transmission. Journal of Epidemiology & Community Health;56:617-621.

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).

Climate Health Issues

The Peron Naturaliste Partnership (PNP) is a collaboration of nine local governments; being Bunbury, Busselton, Capel, Dardanup, Harvey, Mandurah, Murray, Rockingham and Waroona. The PNP's vision is to build resilience in our coastal communities and reduce risks posed by climate change. In 2011, the PNP received Federal Government funding under the Coastal Adaptation Decision Pathways (CAPS) Project to Develop Flexible Adaptation Options for the Peron Naturaliste Coastal Region of Western Australia⁴. The project produced hazard maps for the region and developed adaptation planning options. These outputs then informed two specific project outcomes:

1. An economic-based regional analysis of adaptation options to treat identified impacts of coastal climate change.
2. Detailed demonstration of several coastal adaptation pathways and options in local area case study sites.

The project identified that from now until 2100:

- Erosion is a far more pervasive issue than flooding.
- 800 hectares of residential land would be subject to an increase in flooding risk.
- Approximately 200 metre wide strip is at risk from erosion along the whole extent of the coastline.
- The value at risk of the affected assets along this section of coastline is approximately \$1.2 billion.
- Approximately \$1.1 billion of assets can be saved, at a cost of around \$120 million.

All levels of government have a responsibility to address the risks (including health risks) associated with coastal climate change. For example, local governments are required to identify coastal hazards and risks and prepare adaptation plans⁵. Many local governments in the PNP region and in the process or have completed coastal hazard risk management and adaptation plans.

In order to gain a better understanding of what communities currently value on the coast and how these values may be impacted as a result of climate change, the PNP developed and implemented a community research project⁶ with Production Function, Dr. Laura Stocker and Curtin University. The research identified that coastal communities place a high importance on visiting beaches and foreshores

⁴ Department of Climate Change. (2009) Climate change risks to Australia's coast: a first pass national assessment. Australia Government, Canberra

⁵ Western Australian Planning Commission. (2013). SPP 2.6 - State Coastal Planning Policy.

⁶ Report for Peron Naturaliste Partnership. (2018). Involving Communities in Developing Coastal Risk Management Frameworks in Western Australia

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).

in terms of providing physical fitness and mental/emotional health benefits. Coastal erosion and inundation mapping indicates that there will be significant loss of these coastal foreshores and reserves from now until 2110⁷. Consequently there will be substantial impacts on the physical and mental/emotional health and well-being for many in the community. The PNP projects and other research findings suggest that coastal communities will be increasingly affected by coastal hazards. Local governments and their local communities are at the forefront of facing increasing risk from coastal climate change factors. There are many ways that these increasing risks can have an impact on the Health Service and human health in general.

In summary:

- There are existing critical services that may be affected in an extreme weather event or under future sea level rise scenarios.
- When planning for placing critical services (i.e. emergency services, affordable housing and hospitals), coastal hazards and climate change factors need to be considered.
- It is important to work with the community to build community resilience to these increasing risks and involve communities in decision making.
- Decisions need to be made with consideration to the potential likely risks
- Human health is dependent on a healthy environment⁸.
- Vulnerable communities will be first and in many cases most affected.
- Climate change impacts have no boundaries – ignores local and state government boundaries.
- Community resilience must be built.
- Regional scale partnerships are ideally placed to address risks, optimize opportunities and benefit all involved.
- Communities' place an extremely high value on the coast as it provides physical, mental and spiritual health benefits.
- People have cultural connections to the coast, particularly Cultural Heritage

⁷ Department of Climate Change. (2009) Climate change risks to Australia's coast: a first pass national assessment. Australia Government, Canberra

⁸ Sainsbury, P. , Charlesworth, K. , Madden, L. , Capon, A. , Stewart, G. and Pencheon, D. (2019), Climate change is a health issue: what can doctors do?. Intern Med J, 49: 1044-1048. doi:10.1111/imj.14380

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).

Recommendations

- Whole of government approach needed to seek opportunities and reduce risks posed by climate change.
- All levels of government need to work together to build resilience in coastal communities and be prepared.
- Trilateral governance agreements and appropriate and sustainable funding and resourcing is required.
- Need to plan for coastal hazards and extreme events (particularly for emergency and health services).
- State Government to develop Adaptation and Mitigation Plans for Health Services
- Undertake research to increase our knowledge and understanding of how coastal hazards will impact community coastal values and the associated health benefits and plan to minimize these impacts.
- Undertake research to increase our knowledge and understanding of how coastal hazards will impact vulnerable communities.
- Undertake research to increase our knowledge and understanding of how coastal hazards will impact critical health infrastructure.
- Further studies into how climate factors will increase risks to our cultural heritage
- Further studies into how climate factors will impact tourism, sports and recreation

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

Signed:



Climate Change Adaptation Coordinator

p:
m:
e:
e:



visit: 3 Peel Street MANDURAH
post: PO Box 210 MANDURAH WA 6210
web: www.mandurah.wa.gov.au

