

## *Minutes*

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### **Bungle Bungle World Heritage Area Advisory Committee Meeting**

<b>Date</b>	<b>Time</b>	<b>Location</b>
Tuesday 16 March 2021	09:00 WST	Kununurra / Teams online meeting

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**09:50 Executive Officer update**

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Discussion <sup>s. 47F(1)</sup> attended fire meeting where climate change was noted to be changing fire behaviour. <sup>s. 47F(1)</sup> Clear that climate is changing in the north and fire managers have to be adaptable.

s. 22(1)(a)(ii)

### 4.3 CVI CLIMATE CHANGE REPORT AND UPDATES – PHILLIP SCOTT

Phil Scott provided an update for the Committee on the Climate Change Vulnerability Index (CVI) workshops, the subsequent report and the potential for a future Climate Adaptation Plan for the Shark Bay WHA. The full report of the outcome of both Climate Change workshops is available at : <http://www.wamsi.org.au/cvi-shark-bay>. The CVI process identified high vulnerability to the WH values from the potential three major climate change threats/stressors, which are:

1. Storm intensity and frequency
2. Extreme marine heat events
3. Air temperature change.

The ultimate aim of the workshops was to lay foundations for the development of a Climate Change Adaptation Strategy and Action Plan for the WHA. The adaptive capacity of local management and scientific/technical support to address the climate stressors was assessed at low to very low. Key knowledge gaps were identified during the workshops.

A CSIRO project team have been commissioned by the Commonwealth Department of Agriculture, Water and Environment (DAWE) to work with all Australian WHAs to:

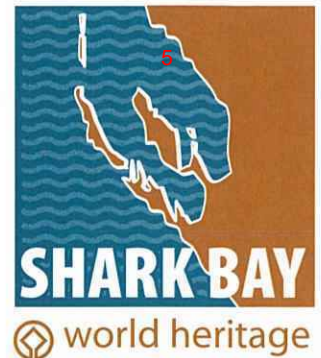
- Gauge what is understood about climate change impacts for each property,
- Identify those impacts and thresholds using climate data, and
- Translocate climate impacts to vulnerability and risk.

CSIRO will also bring an Indigenous Reference Group together online via video-conferencing, conduct workshops and carry out case studies if necessary.

Members considered that a good basis to commence an adaptation plan is to compile templates for Shark Bay, based on the Wet Tropics Climate Adaptation Plan model, as this will provide structure for future progression. LG and DW volunteered to undertake this task for the committee's endorsement of the final document.

It was agreed that an adaptation strategy will require coordination across several agencies, including DBCA, DPIRD, SSB, GDC and NCWHAC. Once finalised, the adaptation strategy will be provided to the Director General of DBCA, State and Federal Ministers for the Environment, etc.

Hon Stephen Dawson MLC  
 Minister for Environment  
 Level 12, Dumas House  
 2 Havelock Street  
 WEST PERTH 6005



Dear Minister Dawson

### Climate Change Adaptation Strategy and Action Plan

As you are aware, the Shark Bay World Heritage Advisory Committee (SBWHAC) has organised, and participated in, workshops on Climate Change during the past two years in conjunction with the National Environmental Science Programme (NESP) of CSIRO's Earth Systems and Climate Change Hub (ESCC) and members of James Cook University in Queensland who developed a rapid assessment tool – the Climate Vulnerability Index (CVI).

From these workshops and subsequent meetings, the ESCC Hub Report No 7 was published in November 2018 to lay the foundations for a climate change adaptation strategy and action plan for Shark Bay World Heritage to explore options to preserve and maintain the property's values against the increasing pressure from destructive climate change impacts.

Although the IUCN Committee foreshadowed possible negative impacts of climate change on the Shark Bay World Heritage Area's complex marine ecosystem at the time of UNESCO Listing in December 1991 and the IUCN Outlook (2020) also highlighted potential effects on the values from climate change, it is concerning that there is a lack of resources and prioritisation for climate change adaptation planning. By way of example, the significant impacts associated with the hot water event of 2010-2011 (loss of around 25% of seagrass meadows) provides evidence of the potential for substantial scale impacts. The event required considerable changes to fisheries and various other resource allocations.

s. 22(1)(a)(ii)

SBWHAC is concerned about the lack of progress to develop a plan for practical actions to respond to, and manage, the major perturbations we are seeing in climate in Shark Bay. The SBWHAC was established to provide advice on management of the unique, global natural values of Shark Bay and urges you to ensure resources and prioritisation enables a Climate Change Adaptation and Action Plan to be prepared and implemented for Shark Bay as a matter of priority.

#### Shark Bay World Heritage Advisory Committee

Please address all correspondence to:

The Chair  
 c/- Department of  
 Parks and Wildlife  
 Shark Bay District Office  
 Knight Terrace  
 Denham WA 6537

Phone: (08) 9948 2226  
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cheryl.cowell@dpaw.wa.gov.au  
 (Executive Officer)

www.sharkbay.org



The Outstanding Universal Value (OUV) of Shark Bay has been found to be highly vulnerable to climate change with low capacity to adapt. If immediate action is not taken there is likely to be substantial changes to the OUV due to the increasing occurrence of marine heatwaves, increased air temperatures and greater storm intensity and frequency (as outlined in the attached CVI report).

The risks of 'doing nothing' will result in loss of Shark Bay's OUV and the collapse of fundamental ecosystems. Planning should focus on identifying practical and economic responses to seagrass loss, identification and management of the key threats to stromatolites and general climate change threats and responses.

SBWHAC is currently endeavouring to develop a Climate Change Adaptation Action Strategy Plan for Shark Bay, but only has an advisory capacity and funding limited to the employment of an executive officer and conduct of the Committee.

s. 22(1)(a)(ii)

Yours sincerely

s. 47F(1)

Phil Scott  
CHAIR

02 February 2021

Attachment – Climate Change and the Shark Bay World Heritage Area  
Foundations for Climate Change Adaptation Strategy and Action Plan  
Earth Systems and Climate Change Hub Report No. 7 NESP

cc

s. 22(1)(a)(ii)

s. 22(1)(a)(ii)



# NINGALOO COAST

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## WORLD HERITAGE ADVISORY COMMITTEE

Andrew McNee  
Acting First Assistant Secretary  
Environment Approvals Division  
Department of Agriculture, Water and the Environment  
[andrew.mcnee@awe.gov.au](mailto:andrew.mcnee@awe.gov.au)

Dear Mr McNee,

### CONSULTATION: RECFISHWEST EXMOUTH DEEPWATER ARTIFICIAL REEF PROPOSAL

s. 22(1)(a)(ii)





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## WORLD HERITAGE ADVISORY COMMITTEE

s. 22(1)(a)(ii)

The IUCN World Heritage Outlook assessment (2020)<sup>2</sup> downgrading of the Ningaloo Coast from “GOOD” to “GOOD WITH SOME CONCERNS” is related to several significant threats impacting the OUV: climate change; oil and gas exploration/development; increasing visitation and recreational fishing; and invasive species.

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<sup>2</sup> <https://worldheritageoutlook.iucn.org/explore-sites/wdpaid/555542338>







# NINGALOO COAST

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## WORLD HERITAGE ADVISORY COMMITTEE

### **Strategic Advice for the Exmouth Gulf - Consultation Environmental Protection Authority**

#### **Submission by the Ningaloo Coast World Heritage Advisory Committee**

The Ningaloo Coast World Heritage Advisory Committee (the Committee) addresses activities within and adjacent to the Ningaloo Coast World Heritage Area that have the potential to impact the outstanding universal value of the World Heritage area. The comments below specifically address the community and industry consultation in relation to the current and proposed pressures facing the Exmouth Gulf and how they are/will impact on the area's environmental, social and cultural values.

s. 22(1)(a)(ii)



**Ningaloo Coast World Heritage Advisory Committee  
The Chair**

c/- Parks and Wildlife Service - Exmouth District  
Department of Biodiversity, Conservation and Attractions  
PO Box 201, Exmouth, Western Australia 6707  
Phone: s. 47F(1) Email: s. 47F(1) [@dbca.wa.gov.au](mailto:s.47f(1)@dbca.wa.gov.au)



# NINGALOO COAST

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## WORLD HERITAGE ADVISORY COMMITTEE

### 3. What environmental pressures do you observe in and around Exmouth Gulf?

The Committee notes the following **environmental pressures** associated in and around Exmouth Gulf.

The IUCN 2011 technical evaluation for the Ningaloo Coast; the 2017 World Heritage Outlook assessment; and the 2020 draft World Heritage Outlook assessment has identified specific threats which are either currently impacting or have the potential to impact the World Heritage values (IUCN, 2010; IUCN, 2017). Please see the identified threats to the World Heritage values outlined below. The 2020 draft World Heritage Outlook assessment will be publicly available towards the end of 2020.

s. 22(1)(a)(ii)



**Ningaloo Coast World Heritage Advisory Committee**  
**The Chair**

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# NINGALOO COAST

## WORLD HERITAGE ADVISORY COMMITTEE

### s. 22(1)(a)(ii)

4. *Climate change (including potential impacts); storms/flooding (climate change and severe weather)*
- Climate change will increase levels of stress on the natural environment of the Exmouth Gulf and adjacent areas of Ningaloo Reef. Increases in anthropogenic impacts from a range of activities will exacerbate these impacts and likely act in a synergistic fashion to increase impact and lessen resilience. Fragmentation of habitats by poorly planned developments will further impact ecosystem resilience through loss of connectivity and impairment of recovery processes.
  - Related to climate change, storms and other extreme weather events will place higher demands on a range of coastal infrastructure like roads, coastal impoundments (e.g. salt or aquaculture) marinas and ports. Proper caution must be used in planning and construction of any such facilities to ensure they do not exacerbate the damage caused by extreme events.
  - Climate change poses the biggest threat to the long-term conservation of the property. While the Ningaloo Coast is one of only three (of 29) World Heritage-listed coral reefs not expected to experience bleaching at least twice per decade by 2041 (a frequency that is likely to cause total mortality) under Representative Concentration Pathway (RCP) 8.5 climate projections (Heron et al.; 2017); the same models predict that bleaching will occur at least twice per decade after 2041, a frequency that will rapidly kill most corals present and prevent successful reproduction necessary for recovery of corals, and annual bleaching by 2049. Exmouth Gulf Reefs (including Bundeji within the World Heritage area) have been severely affected by multiple bleachings and some reefs are already showing reduced ability to recover following these impacts (Babcock et al. in press).
  - The greatest potential threat to the World Heritage property is the further unknown effects of climate change (IUCN, 2017) that could result in the risk of drought, catastrophic fire, change in cyclone frequency, increased wave energy, change in the temperature of seawater, coral bleaching, ocean acidification, and sea level rise and its associated impacts on coastal communities and habitat (i.e. nesting habitat for turtles, mangroves) all of which would greatly impact the World Heritage values including biodiversity (coral, seaweed/seagrass, fish and other marine fauna).



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# NINGALOO COAST

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## WORLD HERITAGE ADVISORY COMMITTEE

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Dear s. 47F(1)

### STRATEGIC ADVICE FOR THE EXMOUTH GULF - MARINE AND TERRESTRIAL RISK ASSESSMENT WORKSHOP

s. 22(1)(a)(ii)



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**Ningaloo Coast World Heritage Advisory Committee  
Chairperson**

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# NINGALOO COAST

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## WORLD HERITAGE ADVISORY COMMITTEE

### **Attachment 1: Committee advice in relation to the Exmouth Gulf - Marine and Terrestrial Risk Assessment**

s. 22(1)(a)(ii)

#### Identified major pressures impacting Exmouth Gulf values

- s. 47B(b)

s. 22(1)(a)(ii)



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**Ningaloo Coast World Heritage Advisory Committee  
Chairperson**

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52<sup>ND</sup> GBMWHA ADVISORY COMMITTEE MEETING

FRIDAY 14 AND SATURDAY 15 MAY 2021

ITEM 21 05	WORLD HERITAGE AND CLIMATE CHANGE	TIME ( 10 mins)
GBMWHA STRATEGIC PLAN REF: INTEGRITY		

**PURPOSE OF PAPER**

To provide an update on Blue Mountains Branch Conservation Team projects across the GBMWHA.

s. 22(1)(a)(ii)

- Discuss the operational approach described in the Gondwana Climate Change Adaptation Strategy and how it could be applied in the GBMWHA

s. 22(1)(a)(ii)

<b>PAPER PREPARED BY</b> s. 47F(1) and s. 47F(1)	<b>PEOPLE TO ATTEND FOR ITEM (IF REQUIRED)</b>
<b>ATTACHMENT(S)</b> Extract of s. 47F(1)	presentation, Feb 2021

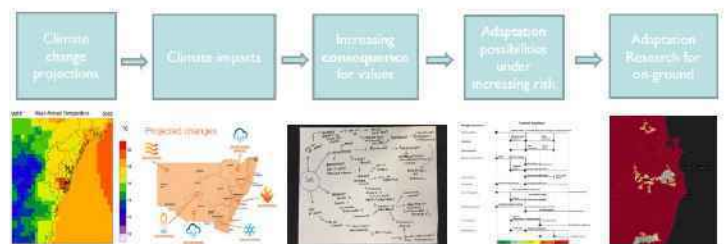
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## EXTRACTS OF s. 47F(1)

PRESENTATION, FEB 2021

## 4. Current Status and context of climate change adaptation

s. 22(1)(a)(ii)

Progress in climate change adaptation:  
Understanding what we can doPROTECT REFUGIA, RESCUE GENETICS, SUPPORT  
TRANSITION

## Showcasing adaptation actions

s. 22(1)(a)(ii)

- Identify and protect climate change refugia. Showcasing the National Parks areas of importance

s. 22(1)(a)(ii)

- Climate change fire management strategy discussions
- Climate-ready Revegetation – where and how do we do it?

s. 22(1)(a)(ii)

Identify and protect climate change refugia:  
Showcasing the National Parks areas of importance

- Data – climate change refugia modelling – habitat suitability modelling – places of climate refuge

s. 22(1)(a)(ii)

s. 22(1)(a)(ii)



## Item X: Making World Heritage Biosecurity Everyone's Business

Document 9

AWHAC Meeting 17 February 2021

Presenter: Biosecurity Working Group

Lead Author: Sue Sargent

Support Authors: s. 47F(1) s. 47F(1) and s. 47F(1)

Issue Title:	Making World Heritage Biosecurity Everyone's Business
Challenges:	<ul style="list-style-type: none"> <li>Australia is fortunate to be free of many pests and diseases that impact other countries. We have great access to fresh food, fibre, open spaces and a unique environment. However, increased global trade, recreational travel, population, and climate change are increasing biosecurity risk.</li> </ul> <p>s. 22(1)(a)(ii)</p>

s. 22(1)(a)(ii)



Proposed  
Approach

<sup>1</sup>  
s. 22(1)(a)(ii)

- The World Heritage Committee recommends that States Parties include disaster, climate change and other risk preparedness as an element in their World Heritage site management plans and training strategies (Operational Guidelines, 2019). Given the Australian Government's directive that all World Heritage properties have a Strategic Management Plan, biosecurity should be a risk/threat consideration.

s. 22(1)(a)(ii)

- Properties should consider the implications of climate change on biosecurity (Australian Government review currently being undertaken by CSIRO).
  - Opportunistic weeds and pests can lead to ecosystem change, loss of buffer areas or direct impacts to vegetation/OUV.
  - Weeds and pests are also linked to bushfires with reduced resilience to fires and increased pathogens post-fire.

s. 22(1)(a)(ii)

<sup>1</sup> CSIRO (2020) *Australia's Biosecurity Future. Unlocking the next decade of resilience (2020-2030)*. <https://www.csiro.au/en/Research/BF/Areas/Our-impact-strategy/Biosecurity-Future-Report>



**Australian Government**  
**Department of Agriculture,  
Water and the Environment**

## Australian Heritage Strategy review

We released the Australian Heritage Strategy in 2015. It sets out a national approach over 10 years to:

- identifying, protecting and conserving Australia's unique heritage
- presenting and communicating related stories.

The strategy was developed in consultation with Australia's heritage community. In accordance with commitments in the strategy, we are now conducting a mid-term review.

The strategy highlights the significance of Australia's unique heritage and the role it plays in the community.

### Provide your feedback

You can now provide feedback on the strategy. We want to hear your views on the strategy, including on:

- the strategy's strengths and weaknesses
- how the strategy might be improved for the next 5 years
- whether the strategy appropriately reflects Aboriginal and Torres Strait Islander heritage
- whether the strategy adequately reflects heritage's key threats, developments and challenges
- how the strategy might reflect the involvement of communities in protecting and managing our heritage.

To have your say, take our survey: <https://haveyoursay.awe.gov.au/australian-heritage-strategy-review>

Submit your feedback by **31 March 2021**.

## Survey starts

**1. What is your name?**

Sue Sargent

**2. What is the name of the organisation you represent or work for?**

Fraser Island (K'gari) World Heritage Advisory Committee (and K'gari representative on the Australian World Heritage Advisory Committee)

s. 22(1)(a)(ii)

s. 22(1)(a)(ii)

**13. How can the strategy make the most of these opportunities?**

s. 22(1)(a)(ii)

Focus on threats to our National and World Heritage properties – with a greater focus on Climate Change mitigation and adaptation. In 2019-20, 1350Ha of bushland burnt on K’gari in the south of the island, that was followed by a devastating 85,000Ha fire in 2020 (across the central and northern zones of the island). Over 50% of the Island has been burnt in the last 12 months. With myrtle rust established on the island in 2013, we are now monitoring the impacts of myrtle rust on fire-impacted vegetation as it regenerates. Without intervention, the risk of bushfire, threats from myrtle rust and other biosecurity risks will continue to impact on our nationally, internationally and culturally significant natural heritage.

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