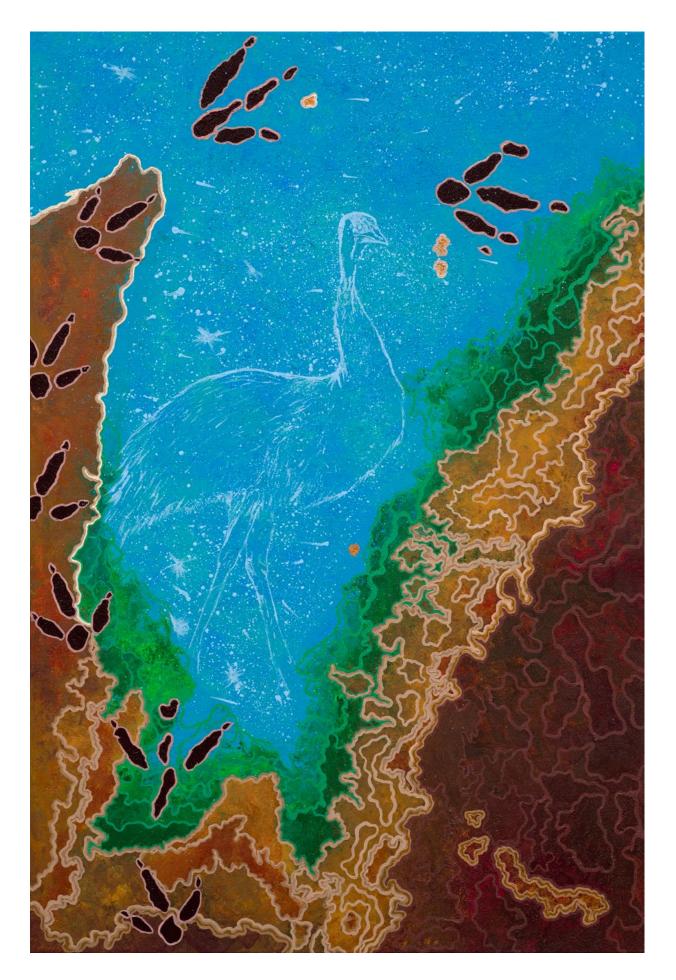


Exmouth Gulf Taskforce

Final Report to the Minister for the Environment



Exmouth Gulf Taskforce

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Acknowledgement of images and cover art

Report images are shared with permission by: Jayne Darch, Renee Morgan, Naomi Rakela, Troy Sinclair, Wendy Thompson, Sallyann Gudge, Jenny Shaw, Aimee Jan and Sarah Titchen.

Gajalbu manggarn ngarrari (Emu Spirit Country) – Cover art, Rachael Cooyou April 2025

The old emu searches this country looking for his mate.

He starts at the red pindan sand hill country and searches right through the salt flats and marsh areas, then along the beach sand areas of warnangura (Cape Range).

He keeps going right to the top of warnarngura then into the sea and across the top of the gulf to the far side of Payungu country.

He leaves behind his footprints that are now the islands in the gulf.

He finds his mate then walks the country showing his little ones.

When his time is right his spirit lifts into the night sky.

You can see him on very dark nights in the milky way.

Rachael Cooyou, Payungu Elder, Mother, Grandmother, Wife, Artist, and owner/operator of rae-wendy creations (rwc). rwc has been in operation since 2019; however, Rachael's love for the arts, sewing and creating her 'wearable art' has been a passion that dates to when she was nine years of age. It is Rachael's goal to show the opportunities available to First Nations people.

Acknowledgement of Baiyungu Dictionary

Baiyungu Dictionary 2007, compiled by Hazel Walgar and Albert Burgman www.wangkamaya.org.au/pilbara-languages/01-bayungu

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Acknowledgement of Country

The Exmouth Gulf Taskforce (Taskforce) acknowledges the Traditional Custodians of the Exmouth Gulf – the Baiyungu and Yinnigurrura people – and pays respect to their Elders past, present and emerging.

The Taskforce also acknowledges the Traditional Custodians of Onslow – the Thalanyji people – and pays respect to their Elders past, present and emerging.

WARNING: Aboriginal and Torres Strait Islander participants are warned that the following publication contains the names and images of deceased persons, and words and descriptions that may be culturally sensitive.

Nyinggulu Sea Country Plan vision

Country is alive; there is respect for, and connectivity, balance and harmony in the Country and with its People. Our People are continuing to care for Country, now and for future generations, and in turn Country is caring for us.

"We are the last link to all them old Elders, while we're still here we're the connection.

We have to be the ones to be the caretakers of the Country and pass what knowledge we have on to our children and grandchildren, so that our words will continue to be heard through generations to come."

Rachael Cooyou NTGAC Vice Chair and Taskforce Member

"We are the voice of the ancestors past. They are no longer here.

Their stories have been passed on to us through generation to generation over thousands of years. We are still telling the same stories. For many, many years walking in the same footprints, telling the same stories that were passed down."

Rachael Cooyou NTGAC Vice Chair and Taskforce Member

"When it's gone, it's gone."

The late Mr Harold Dickerson Sr

"If you don't look after it, you lose the animals and the coral. In other places, where they've ripped the Country up, all the Old People are gone because they did the wrong thing by that Country.

The area is important to us because the Old People lived there, round the Gulf. That's where they stayed, Exmouth, Ningaloo, all along the Cape, Exmouth Gulf. That was their home. Those Old People are still there, it's a really sacred area.

They had songs for everything, for all that Country.

There's a lot of places that are still really sacred."

The late Mr Harold Dickerson Sr

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From the Exmouth Gulf Taskforce Chair



I am pleased to present the Exmouth Gulf Taskforce Final Report to the Minister for the Environment. I thank the Minister for the opportunity to provide advice and recommendations to safeguard this special part of Western Australia.

Exmouth Gulf and surrounds are globally significant and truly exceptional from environmental, social and cultural perspectives. The Gulf is home to nursing humpback whales, dugongs and multiple conservation significant species. These species are dependent on the ongoing health and resilience of the Gulf ecosystems and connected lands and waters for their survival.

The Gulf's Warnangura (Cape Range) supports diverse subterranean fauna, with two of only three known vertebrate stygofauna species in Australia. Its subterranean karst system hosts some of the most unique and diverse anchialine stygobitic and terrestrial troglobitic cave fauna in the world.

The region has high socio-economic values, supporting the Exmouth and Ashburton communities with eco-tourism, pastoralism, recreational and commercial fishing and a vast array of recreational land and water-based activities. These activities are enjoyed not only by local communities but attract national and global travellers to experience the natural wonders of the Gulf and surrounds.

Importantly, known as 'Nyinggulu', the Gulf, Reef and Range are of immense cultural and spiritual significance to the Traditional Custodians. I convey my deepest respects to the Baiyungu, Yinnigurrura and Thalanyji people – and acknowledge Elders past, present and emerging. The Nganhurra Thanardi

Garrbu Aboriginal Corporation (NTGAC) was an essential partner in delivering this report, imparting understanding and connectedness of Country to myself and the Taskforce.

I recognise their deep connection and insightful knowledge of Country, and trust, in sharing their stories with myself and Taskforce members. In particular, I pay my respects to the late Mr H Dickerson (Senior) who was a man of few words, but when shared, spoke volumes of his love and deep connection for Country.

This Final Report, in conjunction with the Exmouth Gulf Taskforce Interim Report to the Minister for Environment (Interim Report) fulfils the Taskforce Terms of Reference. This Report highlights the need for complementary protection mechanisms, enhanced protections of the Cape Range Subterranean Waterways, a State of Exmouth Gulf reporting framework, further coordination in the Gulf and empowerment and capacity building for NTGAC.

This builds on the Interim Report, which recommended the establishment of a whole-of-Gulf marine park, supported by a tailored approach to marine park planning and resourcing the Traditional Owners, represented through NTGAC.

The February 2025 marine heatwave and coral bleaching event, resulting in record increases in sea surface temperatures, highlights the Gulf's vulnerability. Events like this and the lack of associated longitudinal scientific knowledge and structured reporting heightens the need to understand and protect this special place, not only for future generations, but for the many species and interconnected ecosystems and cultural stories whose existence depends upon it.



Exmouth Gulf. May 2025. Image: Wendy Thompson

Taskforce members were united in their desire to protect the values of the Gulf and enhance those for the Cape Range Subterranean Waterways, with most emphasising the north-eastern Gulf for complementary protections.

Although there has been increased coordination and knowledge sharing within the Gulf since the establishment of the Taskforce, there remains further opportunities to work collaboratively to protect the Gulf and surrounds and support sustainable socio-economic development. Ensuring that our future generations are provided the same or similar opportunity to access, experience, appreciate and enjoy the Gulf and surrounds has underpinned our considerations.

Critically important is supporting the empowerment and capacity of NTGAC and their aspirations for self-determination and stewardship and health of Country. The Taskforce unequivocally supports NTGAC's desire for genuine partnership equity in managing Country and shared decision making.

In closing, I acknowledge Ms Laine Ashforth-McDonald, inaugural Chair of the Taskforce, for her leadership and guidance from the Taskforce's inception, through to delivering the Interim Report. I sincerely thank my fellow Taskforce members for their insights, input, robust discussions, active participation and desire to ensure protections recommended are sustainable while also fostering socio-economic development for the communities of Exmouth and Ashburton. I also acknowledge and appreciate the contributions of previous members who helped advise the Taskforce, and the many subject matter experts who contributed research and advice to inform Taskforce understanding.

I am particularly grateful to the Taskforce Secretariat team, whose coordination, guidance and dedication allowed the Taskforce to deliver on our Terms of Reference.

Lastly, I wholeheartedly thank the Exmouth and Ashburton communities who attended community forums, participated in surveys and shared their views with myself and Taskforce members, expressing their passion to share, protect and safeguard the spectacular place they call home.

David McFerran

Chair

Exmouth Gulf Taskforce

Summary

This Final Report fulfils the Exmouth Gulf Taskforce's (Taskforce) advice to the Minister for the Environment. The Taskforce Terms of Reference for advice includes:

- A report within the first two years addressing knowledge gaps identified by the Environmental Protection Authority in its report and through consultation.
- Specific advice and recommendations including, but not limited to:
 - » options to deliver a high-level protection for the Cape Range Subterranean Waterways (CRSW)
 - » options to deliver long-term integrated management of land and sea, including the establishment of a secure marine reserve over the wider Exmouth Gulf (Gulf) area that does not adversely impact existing managed fisheries, and
 - » options to inform terrestrial and marine protection planning processes.

The Taskforce Final Report delivers advice and recommendations for future protection mechanisms, structured reporting and integrated management of the globally significant Gulf and surrounds. This report builds on the recommendations and advice provided by the Taskforce in its <u>Interim Report</u> to the <u>Minister for Environment</u> (Interim Report), which recommended:

- establishment of a whole-of-Gulf marine park
- supported by a tailored approach to marine park planning
- resourcing the Traditional Owners, represented through the Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC).

Exmouth Gulf and surrounds are widely used and valued by the local Exmouth and Ashburton communities, the tourism and experiential sectors and the commercial and recreational fishing sectors. Both communities engage in similar leisure activities associated with strong social, amenity and intrinsic values for the Gulf.

The Gulf's unique environment, social and cultural values also make it a drawcard for visitors across the globe and a valuable asset for all Western Australians. In this regard, there remains a clear opportunity to recognise, and support the communities, tourism, fishing, pastoral and commercial sectors that value and use the Gulf and surrounds through sustainable management and protections.



Exmouth Gulf. Image: Wendy Thompson

The Taskforce submits the following additional recommendations in fulfilment of its Terms of Reference to the Minister for the Environment:



Protection mechanisms with the Traditional Owners

The Taskforce recommends support for local, State and Commonwealth complementary protection mechanisms in conjunction with Traditional Owners to enhance respect for Country and connectivity, balance and harmony for the Gulf:

- engaging with the Australian Government on a nomination for a new National Heritage listing for Exmouth Gulf and surrounds
- additional values and ecological linkages nominations under the World Heritage process, and
- improving protection and management measures to align with significant cultural values mapping and environmental values, particularly the north-eastern Gulf.

Given the unique cultural and natural heritage values of the Gulf and surrounds and its connection to the existing Nyinggulu (Ningaloo) Coast World and National Heritage areas, there is an opportunity to engage with the Australian Government to consider a nomination for National Heritage and World Heritage listing of the Exmouth Gulf and surrounds. This would assist in safeguarding this special part of WA, enhancing tourism recognition while providing further social and economic opportunities to the state, Exmouth and Ashburton communities and Traditional Owners.

In doing so, the Taskforce recognised the importance of Warnangura (Cape Range) and the Gulf region to the Department of Defence, national security and their associated uses and requirements.

Aligned with NTGAC's vision for the Gulf, it is imperative that any protection mechanisms are co-designed and co-delivered with the Traditional Owners. Traditional Owners and Taskforce members recognised the importance of retaining the connectivity, balance and harmony of the globally significant values and intrinsic social amenities for the communities that use the Gulf.



Enhance the protections of the Cape Range Subterranean Waterways

The Taskforce recommends enhanced protections of the CRSW by:

- engaging with the Australian government on expanding the National Heritage listing from existing boundaries to the Western Gulf foreshore
- investing in targeted research and monitoring to improve knowledge that will underpin the long-term protection
- exploring appropriate planning, environmental and water policy mechanisms to incorporate enhanced protections, and
- partnering with NTGAC for knowledge gaps, cultural significance and heritage recognition, surveying programs, management and protection activities.

The CRSW holds deep cultural and spiritual significance for the Traditional Owners of the Gulf, in addition to being nationally and globally significant. The flow of freshwater from Warnangura (Cape Range) into the Gulf through these subterranean waterways brings nutrients into the Gulf, supporting its ecology. The nutrients empty through channels in the western shallows, attracting a variety of marine fauna from dugongs to rays to humpback whales and their calves. Traditional Owners have always had cultural knowledge of this system, which is only now being understood by, and reflected in, western science.

The subterranean waterways and the inhabiting species are poorly understood to enable adequate protections. Subterranean fauna are vulnerable to extinction due to their highly specialised habitat, lifecycle requirements and geographic isolation. The subterranean fauna found on Warnangura (Cape Range) Peninsula is highly diverse and has the highest level of cave fauna diversity for a single karst area in Australia and one of the highest in the world. Two conservation

Department of the Environment, Water, Heritage and the Arts 2010. Ningaloo Coast: World Heritage nomination. Commonwealth of Australia.

significant stygofauna vertebrate species, the blind gudgeon (*Milyeringa veritas*) and blind cave eel (*Ophisternon candidum*), and numerous invertebrate species are only found in WA.

It is critical to increase protections through expanded National Heritage listings on Warnangura (Cape Range) Peninsula as well as complementary planning, environmental and water policy tools. A number of existing state policies and management practices provide some level of protection to the CRSW. However, there are opportunities to enhance protections through existing policy, including considerations for future review processes and complementary policy mechanisms such as Environmental Protection Policies or State Environmental and Planning Policies.

A key gap in delivering enhanced protections is the low level of knowledge to underpin effective management and protection practices.

Addressing the knowledge gaps through targeted research and monitoring will improve the effectiveness of policy tools. Community and cultural stewardship opportunities can assist with addressing knowledge gaps as part of building a comprehensive understanding of the CRSW. Partnership with NTGAC is essential to delivering against the actions needed to enhance the protections and knowledge for the CRSW, including cultural mapping, heritage recognition and capacity building to undertake management and protection activities.

The enhanced protection measures and policy mechanisms should also recognise the hydrologic and geographic constraints of Warnangura (Cape Range) Peninsula to ensure a sustainable Exmouth community.



The Taskforce recommends establishing an ongoing State of Exmouth Gulf reporting framework.

A structured reporting framework would assist in continuing to address knowledge gap priorities and inform decision-makers on outcomes to ensure long-term sustainability and resilience of the Gulf and surrounds.

Adopting a structured reporting process will provide decision-makers with high-quality, transparent, and relevant information to guide protection and management efforts. High-quality information on the state of Exmouth Gulf and its surrounds is essential for ensuring the region's ecosystem health, long-term sustainability and resilience.

A SOEG reporting framework would:

- provide a means of documenting environmental values, baseline data, identifying knowledge gaps, trends and risks
- collate and analyse information on economic, social and cultural values that informs future opportunities and management.

The reporting framework would be underpinned by:

- driver, pressure, state, impact and response (DPSIR) conceptual models, capable of integrating complex interrelated issues such as climate change, biodiversity and sustainable development
- regular reviews to remain fit for purpose, adaptable and responsive to the unique environment of the Gulf
- regularly updating ecosystem-based reporting for Gulf environmental values
- social and economic considerations for the Gulf, that recognises and supports the communities, stakeholders, tourism and commercial and recreational fishing sectors that value and use the Gulf
- sustainable investment into addressing knowledge gaps and research needs that supports the long-term health, sustainability and management of the Gulf and surrounds.



Independent coordinating body

The Taskforce recommends establishing a sustainably funded independent coordinating body, which is to:

- advise the Government on the long-term health and resilience of the Exmouth Gulf and surrounds
- act as a knowledge hub sharing cultural and scientific knowledge, using two-way learning for improved protection of the Exmouth Gulf and surrounds
- ensure outcomes and learnings are shared through the knowledge hub, and
- undergo review every five years to evaluate its continued value to the Government and the community.

The Taskforce recommends continuation of dialogue and collaboration via a sustainably funded, independent coordinating body, co-governed with NTGAC. Planning and management of the Gulf and surrounds needs to be holistic, collaborative, evidence-based and adaptable to changing conditions, incorporating climate knowledge and necessary adaptations.

The coordinating body is not intended to duplicate or supplant existing regulatory processes or planning frameworks but to strengthen the information available to inform decision-makers across organisations and sectors.

The coordinating body would provide an opportunity for sharing and promoting knowledge and learnings for relevant organisations, stakeholders and communities to adapt and respond to. This would be further progressed through the establishment of a knowledge hub, connecting local, state, and Commonwealth jurisdictions, Traditional Owners and supporting the education and outreach of the coordinating body. There is an opportunity for the coordinating body to further advise government on the recommendations outlined in this report, including the complementary protection options.

Community and cultural stewardship actions are important for protecting and sustaining the Gulf and surrounds for future generations. There is an opportunity and imperative for the future coordinating body to actively engage with Traditional Owners, communities and stakeholders, including pastoralists, recreational fishing and tourism operations, for data collection, outreach and reporting outcomes.

It is recommended that the coordinating body be reviewed every five years to ensure its continued value to the government and the community and it remains agile and fit-for-purpose.



DPIRD Chief Fisheries Scientist and Taskforce Member Dr Daniel Gaughan presenting on the severe 2025 marine heatwave at Exmouth Community Forum. May 2025. Image: Naomi Rakela



WAMSI Research Director Dr Jenny Shaw presenting the WAMSI Knowledge review report highlights at Onslow Community Forum. May 2025. Image: Naomi Rakela

Empowerment and capacity building for NTGAC

The Taskforce recommends Nganhurra Thanardi Garrbu Aboriginal Corporation be sustainably funded to be empowered and have capacity for their aspirations for self-determination, stewardship of Country and a pathway for co-leadership in a future coordinating body for Exmouth Gulf and surrounds.

The ability for NTGAC to respond to the needs of all levels of government, industry and stakeholders is heavily dependent on resourcing levels in the organisation as previously identified in the Interim Report. As an entity, NTGAC has only recently been established and requires empowerment, capacity building and support to allow it to become self-determining.

The Taskforce emphasises that a transformative approach is needed where NTGAC is empowered and has greater control and participation in decision-making, partnership and influence, and the design and delivery of programs for stewardship and health of Country, Culture and People.

The empowerment of NTGAC in the decision-making process ensures decisions are appropriately informed from cultural knowledge and values perspectives. For this to occur within existing processes, NTGAC needs to be appropriately resourced so that they can review, assess and advise in a timely and culturally appropriate manner. Empowering Aboriginal people and communities to take an active role, builds resilience, capability, healing and independence, and thus self-determination.

The NTGAC has emphasised their key recommended actions for the future of the Gulf to the Taskforce. Those actions include for the government and the Taskforce to protect the cultural and natural values of the Gulf, including:

 a jointly managed whole-of Gulf marine park be created over the wider Gulf (previously recommended in the Interim Report)

- support continued development and the implementation of the Nyinggulu Sea Country Plan, noting the inherent interconnectedness of the Ningaloo Reef, Cape Range and Gulf. Culturally, NTGAC doesn't separate the Gulf from Country, further planning work is essential to incorporate Country as a whole.
- recognise the cultural importance of water and subterranean systems to Traditional Owners and the critical need to protect waterways, particularly Warnangura (Cape Range) and the *Nyinggulu* (Ningaloo) Peninsula
- support the establishment of an independent Prescribed Body Corporate (PBC) ranger program.

The Gulf and surrounds are unique and globally recognised for their significant environmental, cultural and social values. It is critical that the Gulf is protected and conserved for future generations as a vital economic and social amenity foundation and drawcard for the local communities and visitors. Its ongoing health and long-term sustainability are heavily reliant on:

- implementing strengthened protection mechanisms
- enhanced protection of the CRSW
- continued collaboration and coordination
- ongoing monitoring and reporting (e.g. through a SOEG reporting framework)
- investment in addressing knowledge gaps
 (as identified through the Western Australian
 Marine Science Institution Knowledge
 Review of Exmouth Gulf and Prioritisation of
 Future Research report)
- empowerment and capacity building for NTGAC.

Healthy ecosystems and ecological functions in the Gulf support cultural connections to Country, community well-being, tourism and commercial and recreational fishing. The Taskforce emphasises the importance of sustainable management, enhanced protections and immediate action.



Taskforce Chair David McFerran viewing rare blind gudgeon fish in soak on Cape Range peninsula. May 2025. Image: Jenny Shaw



Baby squid, South Muiron Island. May 2025. Image: Wendy Thompson



Ray at Bundegi beach, Exmouth Gulf. Image: Wendy Thompson



Bleached coral, Bundegi beach, Exmouth Gulf. May 2025. Image: Wendy Thompson



Substrate at Bundegi, Exmouth Gulf. May 2025. Image: Wendy Thompson



Sea cucumber at Bundegi, Exmouth Gulf. May 2025. Image: Wendy Thompson

Abbreviations

Table 1 List of report abbreviations

Abbreviation	Definition
BC Act	Biodiversity Conservation Act
DO ACI	2016
вом	Bureau of Meteorology
DOW	(Commonwealth)
BTAC	Buurabalayji Thalanyji
B1710	Aboriginal Corporation
CALM Act	Conservation and Land
	Management Act 1984
000	Conservation and Parks
CPC	Commission, under
	CALM Act
CRSW	Cape Range Subterranean Waterways
	Cockburn Sound
CSMC	Management Council
Cth	Commonwealth
	Department of Biodiversity,
DBCA	Conservation and Attractions
	Department of Climate
	Change, Energy, the
DCCEEW	Environment and Water
	(Commonwealth)
Defence	Department of Defence
Defence	(Commonwealth)
	Department of Energy,
DEMIRS	Mines, Industry Regulation
	and Safety
DOT	Department of Transport
	Department of Primary
DPIRD	Industries and Regional
	Development
DPLH	Department of Planning,
	Lands and Heritage
DPSIR	Driver, Pressure, State,
	Impact and Response
DWER	Department of Water and
	Environmental Regulation Ecosystem-based Fisheries
EBFM	Management
EGT	Exmouth Gulf Taskforce
LGI	Environmental Protection
EP Act	Act 1986 (Act No. 087 of
	1986)
	Western Australia's
EPA	Environmental Protection
	Authority, under EP Act

Abbreviation	Definition
EDDC 4	Environment Protection and
EPBC Act	Biodiversity Conservation Act 1999 (Commonwealth)
	Environmental Protection
EPP	Policy, Part III EP Act
FRM Act	Fish Resources Management Act 1994
GBRMPA	Great Barrier Reef Marine Park Authority
GDC	Gascoyne Development Commission
GeoCatch	Geographe Catchment Council
ILUA	Indigenous Land Use Agreement
IUCN	International Union for the Conservation of Nature
JTSI	Department of Jobs, Tourism, Science and Innovation
MDBA	Murray Darling Basin Authority
MNES	Matters of National Environmental Significance, under the EPBC Act
NTGAC	Nganhurra Thanardi Garrbu Aboriginal Corporation
NCWHAC	Ningaloo Coast World Heritage Advisory Committee
PBC	Prescribed Body Corporate
SEP	State Environmental Policy, Section 17(3)(d) EP Act
SOEG	State of Exmouth Gulf: Reporting analysis and framework
SPP	State Planning Policy, Part III Planning and Development Act 2005
TOR	Terms of Reference
TEC	Threatened Ecological Community
WA	Western Australia
WABSI	Western Australian Biodiversity Science Institute
WAMSI	Western Australian Marine Science Institution
YMAC	Yamatji Marlpa Aboriginal Corporation

Members of the Exmouth Gulf Taskforce

List of members (May 2025)

David McFerran	Chair
Rachael Cooyou and Karla Tittums	Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC)
Alex Kailis	Sea Harvest Pty Limited
Andrew Rowland	Recfishwest
Paul Gamblin	Cape Conservation Group / Protect Ningaloo
Lyn Irvine and Renee Morgan	Community members
Ben Lewis	Shire of Exmouth
Susan Allan	Shire of Ashburton
Elizabeth Mitchell	Department of Defence (Defence)
Luke Bentley	Department of Biodiversity, Conservation and Attractions (DBCA)
Christopher Cottam	Department of Jobs, Tourism, Science and Innovation (JTSI)
Darren Corr	Department of Planning, Lands and Heritage (DPLH)
Chris J Mather	Department of Transport (DOT)
Emily Briggs	Department of Water and Environmental Regulation (DWER)
Tim Bray	Gascoyne Development Commission (GDC)
Daniel Gaughan	Department of Primary Industries and Regional Development (DPIRD)

Previous members:

lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:	Inaugural Chair
Late Mr Harold Dickerson (S	Senior) NTGAC
Michelle Andrews	DWER
Paul Hanlon	Shire of Ashburton
Sean McCarthy	Defence
Steve Jenkins	DOT
Tym Duncanson	GDC

Supporting partners

The Western Australian Marine Science Institution (WAMSI) partnered with DWER in delivering the complementary reports:

- Knowledge Review of Exmouth Gulf and Prioritisation of Future Research
- State of Exmouth Gulf: Reporting Analysis and Framework

WAMSI Team: Luke Twomey, Jenny Shaw and Alicia Sutton.

Yamatji Marlpa Aboriginal Corporation (YMAC) is acknowledged for its support of NTGAC as its legal representative, executive office and native title Representative Body for the region.

YMAC Team: Radhika Kayarat, Lisa Shiosaki, Edina Boross, James Clifford, Hannah Lucas and Marika Oakley.

Acknowledgements

In addition to the significant contribution by supporting partners, the Taskforce acknowledges the many individuals and organisations, including the Exmouth and Ashburton communities, that generously contributed their time and expertise to the Taskforce. We note the contributions of information, presentations, survey responses, discussions and attendance at meetings and community information forums (Appendix 1).

The Taskforce pays tribute to the leadership of Ms Laine Ashford-McDonald, inaugural Taskforce Chair, who was instrumental in delivering the Taskforce Interim Report and guiding the Taskforce in its initial establishment.

The Taskforce thanks past members for their contributions to the Taskforce knowledge and advice.

The Taskforce thanks DWER for hosting and resourcing the Taskforce and the coordination, guidance and dedication of the Exmouth Gulf Taskforce Secretariat team, without which the Taskforce could not have delivered on our Terms of Reference (TOR).





Rachael Cooyou presents at Tantabiddi soak, September 2022. Image: Troy Sinclair

Taskforce Members in Exmouth, August 2024. Image: Sarah Titchen



Exmouth Gulf site visit with the late Mr H. Dickerson Snr and Karla Tittums, NTGAC Chair, March 2024. Image: Sallyann Gudge





Taskforce Chair cultural site visit – rockshelf near Qualing Pool, March 2024. Image: Wendy Thompson



Taskforce Members in Exmouth, March 2024. Image: Naomi Rakela



Minderoo Exmouth Research Lab site visit, March 2024. Image: Wendy Thompson



Marine Steward Certification presentation by DPIRD at Sea Harvest Exmouth Operations, 2023. Image: Troy Sinclair



Minderoo Exmouth Research Lab site visit, March 2024. Image: Wendy Thompson

Introduction

The Exmouth Gulf Taskforce

In July 2022, the Exmouth Gulf Taskforce (Taskforce) was established following the announcement by the Ministers for Environment and Fisheries for a coordinating body to assist the Government of WA's broader consideration of the strategic issues relating to the Exmouth Gulf (Gulf) and surrounds. The Taskforce was established for a period of three years by the Minister for the Environment under section 25 of the *Environmental Protection Act 1986* (EP Act) and is guided by its TOR (Appendix 2).

This Final Report provides advice and recommendations for future protection mechanisms and integrated management of the globally significant Exmouth Gulf and surrounds. This report addresses the Taskforce TOR, including:

- options to deliver a high-level protection for the Cape Range Subterranean Waterways
- options to deliver long-term integrated management of land and sea
- options to inform terrestrial and marine protection planning processes.

This report builds on the recommendations and advice provided by the Taskforce in the Interim Report.



Juvenile cuttlefish, low tide rockpool, Exmouth Gulf. Image: Renee Morgan

Interim Report

The Taskforce delivered its <u>Interim Report</u> to the Minister for the Environment in September 2023. The purpose of the Interim Report was to consider the current and proposed management mechanisms over the Gulf and provide recommendations for the future protection mechanisms for the wider Gulf.

The Interim Report addressed part of the Taskforce TOR and provided three recommendations:

- 1. A marine park jointly managed with NTGAC should be created under the Conservation and Land Management Act 1984 (CALM Act) over the remainder of the Exmouth Gulf, in addition to the eastern and southern portions of the Gulf currently considered for protection as a marine park.
- The zoning scheme must take a balanced management approach recognising:
 - » the government's existing commitments
 - to very high levels of protection over the eastern and southern portions
 - » the requirement to ensure existing managed commercial fishing activities within the Gulf are not impacted
 - » provide for ongoing sustainable recreational and tourism use, including recreational fishing across the Gulf.
- 2. Given the unique nature of the Exmouth Gulf, an appropriate marine park planning process should be developed through codesign between DBCA and NTGAC, in consultation with DPIRD, and approved by corresponding Ministers.
- 3. The NTGAC to be resourced to fully engage as genuine partners and with partnership opportunities and to support their aspirations for Country, including independent Prescribed Body Corporate activities and programs to support self-determination (e.g. On Country managers, rangers).

In May 2024, the State Government noted and published the Interim Report, identifying that it would consider and respond to the Interim Report recommendations in conjunction with the Taskforce's Final Report advice. The Interim Report and this report's advice and recommendations collectively address the Taskforce TOR for specific advice for the Minister for the Environment.

Context for the Final Report

In August 2021, the Environmental Protection Authority (EPA) published its strategic advice to the Minister for the Environment on the potential cumulative impacts of proposed activities and developments on the environmental, social and cultural values of the Gulf.

The EPA identified that the Gulf was fragile and faces increasing pressures on its unique, globally significant environmental, social and cultural values.

The Taskforce advice to the Minister, as guided by its TOR was to include, but not be limited to:

- a report within the first two years addressing knowledge gaps identified by the EPA in its report and through consultation.
- specific advice and recommendations including, but not limited to:
 - » options to deliver a high level of protection for the Cape Range Subterranean Waterways
 - » options to deliver long-term integrated management of the land and sea, including the establishment of a secure marine reserve over the wider Gulf area that does not adversely impact existing managed commercial fisheries; and adequately considers recreational and charter fishing, and
 - » options to inform terrestrial and marine protection planning processes.

This advice has been developed in collaboration with the community, commercial and recreational industries and sectors, conservation organisations, government agencies (local, state and Commonwealth), in partnership with the Traditional Owners. The following report assumes an inclusive narrative

when considering the Gulf as a multi-use environment and associated stakeholders. This includes all tiers of governments, Defence, local communities, industry, tourism, fishing and pastoral sectors. The report particularly emphasises the role of Traditional Owners as custodians of the land and waters of the Gulf and surrounds.

This Final Report addresses the remaining TOR advice, as requested by the Minister for the Environment, complemented by the WAMSI Knowledge Review of Exmouth Gulf and Prioritisation of Future Research report.

Additional area for complementary protection

The Taskforce now identifies the whole of the Gulf and surrounds as the area mapped in Appendix 3. This includes a proposed north-east protection boundary area for complementary protections, which is currently not covered by the 2021 government commitment for a marine park over the southern and eastern Gulf. The north-eastern protection boundary aligns closely to the optimal boundary highlighted in the original 2004 World Heritage nomination² being north of the Muiron Islands to Locker Point to the Bay of Rest in the south-west of the Gulf.



North-eastern Exmouth Gulf, Urala Station site visit – Exmouth Gulf Taskforce Chair David McFerran and Shire of Exmouth CEO Ben Lewis, May 2025. Image: Wendy Thompson

Taskforce approach to developing the Final Report

Since its establishment, the Taskforce made progress towards building an in-depth and shared understanding of Exmouth Gulf and surrounds. This has been delivered through workshops, regional site visits, meetings and related stakeholder engagements (Appendix 1), with members providing their expertise, and invited subject matter experts presenting on a broad range of projects and research, encompassing the:

- environmental, social and economic values
- cultural values and significance
- commercial, charter and recreational fishing operations
- existing protection and management regimes.

Matters discussed in the duration of the Taskforce include:

- Aboriginal heritage and values: cultural knowledge, Sea Country planning and NTGAC aspirations; freshwater cultural values water mapping; Aboriginal heritage legislation and ILUAs; heritage and archaeology
- Marine environment: northern Gulf values, habitat types, mapping resources and options for long-term secure marine protection
- Marine fauna and habitats: humpback whales, dugongs, turtles, elasmobranchs (sharks, skates and rays), critically endangered green sawfish (*Pristis zijsron*), reef islands and marine soundscapes
- Fisheries: commercial, charter and recreational fisheries, pearling and aquaculture, Prawn Fishery Marine Stewardship Council process
- Water and wastewater: groundwater; allocation planning; future supply options, development, future proofing and potential interaction with marine values and CRSW; sewage treatment operations and options
- Qualing Pool, Mowbowra Creek and connectivity with the marine environment

World Heritage Consultative Committee 2005. Report on a Proposal to Nominate the North West Cape — Ningaloo Reef area for inscription on the World Heritage List. World Heritage Consultative Committee Final Report 18 October 2004. Government of WA.

- Cape Range Subterranean Waterways karst system, Camerons Cave, Bundera Sinkhole, subterranean fauna and National and World Heritage listings
- Migratory birds: species, habitats, international importance and risks
- Climate change: projections, marine heatwaves, and impacts on the ecosystem, threatened species, fisheries stocks and habitats
- Research: opportunities for the Gulf and surrounds to be a research hub for marine and coral environments for tertiary institutions
- EPA section 16 (e) advice process, 2021 Exmouth Gulf strategic advice, current proposals and EPA processes
- Gascoyne Gateway Marine Complex proposal and K+S Salt Australia Ashburton Salt Project proposal, solar salt operations and potential environmental impacts

- WAMSI Cumulative Pressures on the Distinctive Values of Exmouth Gulf 2021 report and research priorities
- State of the environment reporting frameworks and governance models
- Defence: National Defence Strategy, infrastructure, operations and dark sky/low atmospheric pollution values
- Tourism and cruise industry: future potential and risks/issues, carrying capacity, cruise ships – on/offshoring and facilities to cater for tourist spikes
- Exmouth Gulf marine park: commitments, opportunities, planning, economic considerations
- Environmental, cultural and social integrity of the Gulf and risks from industrialisation.



Qualing Pool, near beach access, September 2024. Image: Wendy Thompson

Lessons learned

The integrated approach of the Taskforce presented a unique opportunity to collectively share knowledge, consider strategic issues pertaining to the Gulf and provide considered and informed advice to Government.

In this context, Taskforce members recognised shared lessons learned:

- ecological functions in the Gulf support cultural connections to Country, community well-being, tourism and commercial and recreational fishing, emphasising the importance of sustainable management and government action
- cultural knowledge, significance and custodianship underpins the future health of the Gulf and its surrounds
- shared aspirations for the future health and sustainability of the Gulf exist across sectors, with an emphasis on climate change, and the harm to Gulf ecosystems and necessary adaptation
- there are important social, cultural and community values with opportunities to support and optimise the co-existence of those values
- there is high value in knowledge sharing across sectors, community and government
- building trust across Traditional Owners, government and stakeholders is a valuable and worthwhile investment, but requires capacity, time and support
- regionally-based engagement is vital to facilitate understanding of the local environment, especially community, culture, social and economic values
- regional communities benefit from improved understanding from Perth-based decision-makers, including opportunities and challenges
 - the Gulf is a unique, highly valued environment at a cross-roads. Any carefully managed opportunities are to be shared but not exploited.

Taskforce members perspectives

The Taskforce's diverse membership offered distinct and varied insights into the values, issues and concerns for the Gulf. Collectively, the Taskforce reached a consensus that the Gulf and surrounds are characterised by high environmental, cultural, social and economic values.

The Taskforce recognises the importance of Cape Range and Gulf region to Defence, national security and their associated uses and requirements. A key concern of some Taskforce members is the potential threat of large-scale industrial development to the Gulf and the risks this poses to environmental and socio-economic values inherent to the Gulf. In this context, several Taskforce members emphasised the view that industrialisation is incompatible with retaining and enhancing the significant values and cultural integrity of the Gulf. Some members highlighted the important role of an economic impact assessment to inform future sustainability planning and development. For the future health and sustainability of the Gulf, there is scope to achieve co-existence between social, cultural and economic values and opportunities.

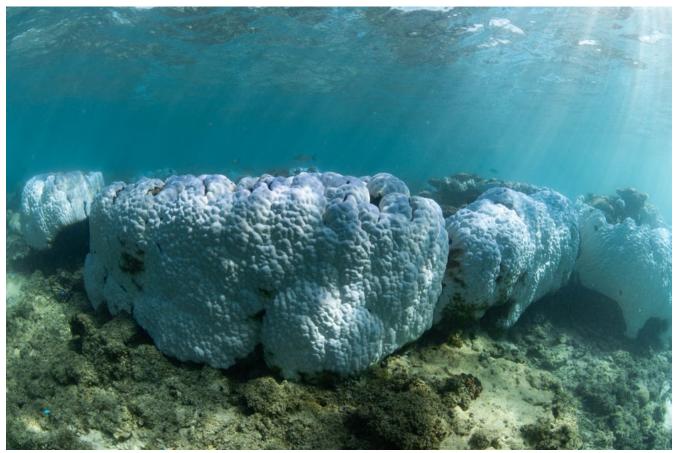
Furthermore, many Taskforce members and partners highlighted the importance of the connectivity, nursery habitat and ecosystem services of the north-eastern Gulf and adjacent Pilbara Coast. This area sits beyond the current indicative marine park boundaries as per the 2021 government commitment (Appendix 3). The mangrove and intertidal areas that characterise the north-eastern Gulf and adjacent Pilbara Coast provide direct ecological linkages and critical habitats to the Gulf, including supporting vital commercial and recreational fisheries. This area is also understood to be important in the nutrient supply to the Gulf; however, much remains unknown about the nutrient flows and is identified as a knowledge gap that needs addressing.3

WAMSI 2025, Knowledge Review of Exmouth Gulf and Prioritisation of Future Research. Prepared for the Department of Water and Environmental Regulation. Western Australian Marine Science Institution, Perth, WA.

Some Taskforce members expressed concern that the recommendations alone do not provide protection to the entirety of the eastern Gulf that is considered critical to the Gulf ecosystem. In particular, the current marine park boundary originating from the 2021 government commitment is aligned with native title boundaries and may exclude key environmental values of the Gulf. The boundaries of the marine park will be determined through the marine park planning process.

In this context, Taskforce members encourage the Minister and Government to prioritise:

- actioning existing protection commitments for the Gulf and surrounds,
- responding to the collective advice of the Taskforce Interim and Final Reports on further protection measures and structured reporting, and
- establishing effective consultation and engagement with the Buurabalayji Thalanyji Aboriginal Corporation (BTAC), the Registered Native Title Body Corporate for the Thalanyji people for the area that sits adjacent to the NTGAC determination area for enhanced policy and protection mechanisms.



Example of bleached porites coral in Ningaloo Reef, Cape Range peninsula. March 2025. Image: Aimee Jan

Summary of recommendations

Table 2 Summary of Taskforce recommendations

2	No Reco	Recommendation and advice	Members' position	Members' comments
	1 Supp with for th	Support local, State and Commonwealth complementary protection mechanisms in conjunction with Traditional Owners to enhance respect for Country and connectivity, balance and harmony for the Gulf, including:	Endorsed 15 of 16 members	Shire of Ashburton – The Shire cannot support an Exmouth Gulf Marine Park and 'Whole of Gulf' Marine Park until an independent economic
	• • • • • • • • • • • • • • • • • • •	engaging with the Australian Government on a nomination for a new National Heritage listing for Exmouth Gulf and surrounds additional values and ecological linkages nominations under the World Heritage process, and improving protection and management measures to align with significant cultural and	Not endorsed Shire of Ashburton	Impact assessment quantifies potential impacts to the growth of Onslow, Shire of Ashburton and wider Pilbara communities. The Shire requests stronger, committed engagement with the Ashburton commitmity stakeholders and
	e e	environmental values, particularly the north-eastern Gulf.		Traditional Owners as part of this process.
	2 Enha • en	Enhance the protection of the Cape Range Subterranean Waterways (CRSW) by: engaging with the Australian Government on expanding the National Heritage listing from existing boundaries to the Western Gulf foreshore 	Endorsed All members	
	• <u>c</u> <u>o</u>	investing in targeted research and monitoring to improve knowledge that will underpin the long-term protection		
	• ex	exploring appropriate planning, environmental and water policy mechanisms to incorporate enhanced protections, and		
	• pa siç	partnering with Nganhurra Thanardi Garrbu Aboriginal Corporation for knowledge gaps, cultural significance and heritage recognition, surveying programs, management and protection activities.		
	3 Estak	Establish an ongoing State of Exmouth Gulf reporting framework.	Endorsed	
	A stra infora surro	A structured reporting framework would assist in continuing to address knowledge gap priorities and inform decision-makers on outcomes to ensure long-term sustainability and resilience of the Gulf and surrounds.	All members	
	4 Estak	Establish a sustainably funded independent coordinating body, which is to:	Endorsed	
	• ad	advise the Government on the long-term health and resilience of the Exmouth Gulf and surrounds	All members	
	• i. ac	act as a knowledge hub sharing cultural and scientific knowledge, using two-way learning for improved protection of the Exmouth Gulf and surrounds		
	. e	ensure outcomes and learnings are shared through the knowledge hub, and undergo review every five years to evaluate its continued value to the Government and the community.		
	5 Ensu empc	Ensure the Nganhurra Thanardi Garrbu Aboriginal Corporation are sustainably funded to be empowered and have capacity for their aspirations for self-determination, stewardship of Country and have capacity for their aspirations for self-determination, stewardship of Country	Endorsed All members	
	2	a patitivay tot co-teaucionip in a juture coolumbaning bouy tot exmount oun and canounds.		

Background

Exmouth Gulf is a large shallow embayment in north-western WA (Figure 1), with its surrounding interconnected marine and terrestrial environments characterised in the EPA's section 16(e) strategic advice.⁴ There are numerous key agencies, roles and legislation across the tiers of government that intersect with Exmouth Gulf (Appendix 4).

Exmouth and Onslow are the key towns and communities for accessing the Exmouth Gulf and surrounds, with populations of 3,085⁵ and 829⁶ respectively. Exmouth town was originally established to provide services to the United States Naval Communication Station Harold E. Holt and the Learmonth Royal Australian Air Force Base. Harold E. Holt remains an active Defence site and important employer for the local community.⁷ The Exmouth population triples during the cooler winter months from April to October with visitors and the seasonal workforce.⁸ The Onslow population can fluctuate seasonally to over 5,000 dependent on resource projects.⁹

Both communities engage in similar leisure activities associated with strong social, amenity and intrinsic values for Exmouth Gulf (e.g. boating, recreational fishing, wildlife observing, bird watching, water sports, four-wheel driving and camping).

Tourism is an important industry for Exmouth and an emerging sector for Onslow. Approximately 30 per cent of Exmouth's workforce is directly employed in

- Environmental Protection Authority 2021, Potential cumulative impacts of proposed activities and developments on the environmental, social and cultural values of Exmouth Gulf in accordance with section 16(e) of the Environmental Protection Act 1986, EPA, WA.
- 5 Shire of Exmouth 2024, 2023–2024 Annual Report. Shire of Exmouth, WA.
- 6 Australian Bureau of Statistics 2021, 2021 Census QuickStats Onslow Urban Centres and Localities accessed 11 February 2025. 2021 Onslow (L), Census All persons QuickStats | Australian Bureau of Statistics
- 7 Shire of Exmouth 2021, Investment Prospectus. Shire of Exmouth, WA.
- 8 Shire of Exmouth 2022, 2021–2022 Annual Report. Shire of Exmouth, WA.
- 9 L Martin 2015 'Small Pilbara Town of Onslow III Prepared for Mining Boom Highs and Lows', *ABC News*.

tourism-related industries (e.g. accommodation, food service and retail trade). Overnight visitors for Exmouth in 2023 totalled 134,000 resulting in approximately \$200 million visitor spend.¹⁰ Exmouth was named Australia's Top Small Tourism Town in 2022 and 2024, which recognises the value of regional tourism destinations in Australia. Aligned with the Nyinggulu (Ningaloo) Coast World Heritage status, the State Government has identified Exmouth as a key destination and aspiration for reliable cruise ship berthing and cruise-tourism. However, there are challenges to overcome with issues such as infrastructure, fresh water supply, facilities and weather conditions,11 as well as the environmental and social impacts of this type of tourism in a geographically constrained and sensitive environment.

Exmouth experiences a large unmet demand for accommodation. Visitors and holidaymakers who stay with locals are unlikely to be captured in the visitation data. Illegal camping numbers are high, impacting on the unique fragile environment, which the Shire of Exmouth, DBCA and Defence are working collaboratively to address.

Onslow's dominant employment areas are mineral resources (13%), oil and gas industries (10%) and local government services (10%). The Ashburton Port is a critical network linkage of the resource and mining sector for the Pilbara and Northwest resource and mining operations. The Shire of Ashburton generates \$ 37 billion Gross Regional Product (9% of WA). Onslow is an emerging tourism destination of choice due to is linkages to the nearby Mackerel Islands.

¹⁰ Tourism Western Australia, Exmouth Tourist Accommodation Growth Outlook 2025–2035 Tourism Western Australia.

¹¹ ACIL Allen Consulting Pty Ltd 2019, Report to Gascoyne Development Commission Economic Benefits Assessment of Exmouth Marine Infrastructure Project Final Report.

¹² Australian Bureau of Statistics 2021, 2021 Census QuickStats Urban Centres and Localities accessed 11 February 2025 2021 Onslow (L), Census All persons QuickStats | Australian Bureau of Statistics.

 [.]id 2025, Shire of Ashburton Gross Regional Product accessed 27 March 2025.Gross Regional Product | Ashburton | economy.id



Juvenile shovelnose ray in Exmouth Gulf. Image: Renee Morgan

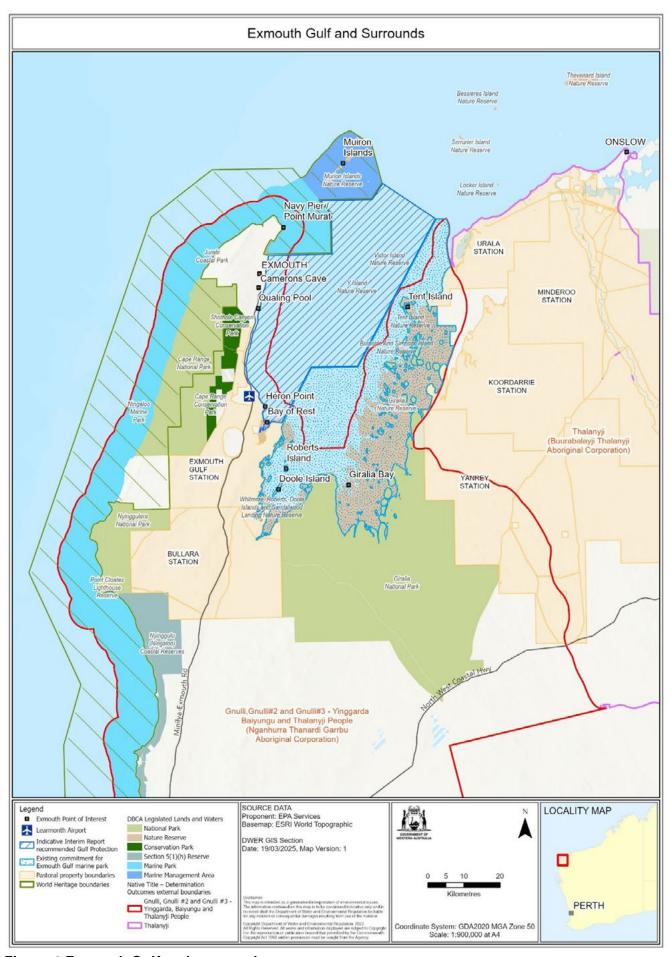


Figure 1 Exmouth Gulf and surrounds

Traditional Owners

Nyinggulu – the Ningaloo Reef, Exmouth Gulf and Cape Range is the traditional land and sea Country of the Baiyungu and Yinnigurrura (also spelled Yinikurtira) people, with at least 32,000 years of continuous occupation.14 15 More recent evidence suggests occupation of more than 50,000 years.¹⁶ Native title was recognised by the Federal Court in the determination of native title made on 17 December 2019 and includes about 71,354 km² across the Shires of Ashburton, Carnarvon, Exmouth, Murchison and Upper Gascoyne. Yinggarda Aboriginal Corporation holds native title in the southern determination area around Carnarvon and NTGAC holds native title in the northern determination area around Exmouth.

A small portion of the terrestrial north-east, from Urala Station to Onslow is the traditional lands of the Thalanyji people represented by the BTAC.

NTGAC is the Prescribed Body Corporate (PBC) under the *Native Title Act 1993* (Cth) that hold the native title rights and interests on trust for the native title holders across the majority of the Gulf region. NTGAC is the PBC for the Baiyungu and Yinnigurrura¹⁷ area that includes Nyinggulu, the Ningaloo Reef, Cape Range and the Gulf.

In 2024, an Indigenous Land Use Agreement (ILUA) was negotiated between the State Government and NTGAC to create new, jointly vested and jointly managed marine and terrestrial conservation reserves in and around the Gulf. The ILUA was registered with the National Native Title Tribunal on 2 September 2024 and new conservation reserves were subsequently created. The establishment of the Exmouth Gulf Marine Park in the southern and eastern portions of the Gulf is subject to a marine park planning process that is being

14 K Morse 1993, 'Shell beads from Mandu Mandu Creek rockshelter, Cape Range Peninsula, Western Australia older than 30,000 years'. Antiquity 67, 877–883.

- 15 PM Veth, K Ditchfield, F Hook 2014, 'Maritime deserts of the Australian northwest', Australian Archaeology 79: 156-166.
- 16 J McDonald, PM Veth 2018, 'Aboriginal people lived in Australia's desert interior 50,000 years ago, earlier than first thought', The Conversation
- 17 In the native title determination, the native title holders are referred to as the Baiyungu and/or Thalanyji people; however, NTGAC has advised Baiyungu and Yinnigurrura is more culturally appropriate.

co-designed by NTGAC and DBCA, with input from DPIRD.

NTGAC has developed a draft *Nyinggulu Sea Country Plan* and Poster (Appendix 5) to holistically guide the care, management and protection of the Exmouth Gulf, a culturally and ecologically significant area for everyone to enjoy, now and for future generations. This participatory process led by NTGAC and facilitated by Pinanyi Consulting, Sea Country Solutions and YMAC has brought together Baiyungu and Yinnigurrura knowledge holders and community members to develop a strategic plan for Nyinggulu (Exmouth Gulf). The *Nyinggulu Sea Country Plan* recognises that Country and People are intrinsically linked and emphasises:

- a shared future vision for the Exmouth Gulf region by Traditional Owners, with Baiyungu and Yinnigurrura Country as the planning scale
- an understanding of biocultural values and agreed strategies to guide management
- employment and economic development opportunities identified by Baiyungu and Yinnigurrura People
- zones for management activities that account for adjacent land/sea use (protected areas, tourism and other complementary enterprises, where relevant)
- identification of partnerships and resources to support Traditional Owners priorities
- empowerment to make decisions for Country, requires the empowerment of Traditional Owners generally. Healthy Country = Healthy People.

Through the Sea Country planning process, the inherent interconnectedness of the Ningaloo Reef, Cape Range and Gulf has come out as one of the most important features. Culturally NTGAC doesn't separate the Gulf from Country, further planning work is essential to incorporate Country as a whole.

The Taskforce Interim Report recommended that NTGAC be resourced to fully engage as genuine partners, with partnership

opportunities and support for their aspirations for Country. To assist this aspiration, DWER provided seed capacity building funding to support NTGAC's function as a self-sufficient independent native title PBC that is empowered to actively engage as a partner with the State and implement their Nyinggulu Sea Country Plan. The ILUA and associated joint-management framework provides some capacity building capabilities and funding relating to the joint management

of the conservation area in that ILUA with DBCA, including the proposed marine park in the southern and eastern portions of the Gulf. However more capacity, resources and funding are required for NTGAC to pursue its aspirations for healthy Country and healthy People in a self-determined, cultural way.



Qualing Pool. August 2024. Image: Wendy Thompson

1. Complementary protection mechanisms

Recommendation and advice

Support local, State and Commonwealth complementary protection mechanisms in conjunction with Traditional Owners to enhance respect for Country and connectivity, balance and harmony for the Gulf, including:

- engaging with the Australian Government on a nomination for a new National Heritage listing for Exmouth Gulf and surrounds
- · additional values and ecological linkages nominations under the World Heritage process, and
- improving protection and management measures to align with significant cultural and environmental values, particularly the north-eastern Gulf.

Matters considered by the Taskforce in informing their advice

Complementary protection mechanisms

The Taskforce considered a variety of protection mechanisms (Appendix 6) that could provide complementary protection for the Gulf, such as the CALM Act, National and World Heritage listing, Aboriginal cultural heritage, Indigenous Protection Areas, Fish Habitat Protection Areas, Ramsar listing, and listing of species and habitats under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act, Cth).

Aligned with NTGAC's vision for the Gulf, the Taskforce felt it was imperative that any protection mechanisms are co-designed and co-delivered with Traditional Owners. Traditional Owners and Taskforce members recognised the importance of retaining the connectivity, balance and harmony of the globally significant values and intrinsic social amenities for the communities that use the Gulf.

National Heritage listing

The Nyinggulu (Ningaloo) Coast is listed on the Australian National Heritage List and protected under the EPBC Act due to its outstanding heritage value. When assessing the original National Heritage Nyinggulu (Ningaloo) Coast nomination, areas including Exmouth Gulf were ultimately excluded and the boundary reduced. Recent values analysis of excluded areas has identified the potential for an expanded boundary similar to the original National Heritage listing nominated area that incorporated the Gulf.

The Taskforce therefore supports engaging with the Australian Government on a nomination for a new National Heritage listing of the Exmouth Gulf, coastal surrounds and additional adjacent marine areas as appropriate. The nomination should allow the Shire of Exmouth and Shire of Ashburton to sustainably develop, acknowledging the environmental values of the area, and historical and ongoing cumulative impacts. The Taskforce notes any application for National Heritage listing to the Commonwealth requires State Government support and free, prior and informed consent from the relevant Traditional Owners.

World Heritage listing

The Nyinggulu (Ningaloo) Coast was inscribed on the World Heritage List on 24 June 2011, in recognition of its outstanding universal value under the following World Heritage criteria (Appendix 6)¹⁸:

- (vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- (x) to contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

The International Union for the Conservation of Nature (IUCN) in its recommendation to inscribe the Ningaloo Coast under natural criteria referred back to the Australian Government to "Consider inclusion of Exmouth Gulf on the grounds of ecological linkages between the Ningaloo Reef and the Gulf, in particular the extensive mangrove stands and other shallow water habitats that function as nurseries and adult foraging grounds for many species".19 The advice also recommended renomination of the Gulf under criterion (ix) - to be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh-water, coastal and marine ecosystems and communities of plants and animals.

There are further opportunities for additional values to be included within the current World Heritage listing under criterion (ix), subject to State and Commonwealth Government support and free, prior and informed consent from the Traditional Owners. Government would also need to consider resourcing implications for the progression and implementation of National and World Heritage nomination listings, as part of future budgetary processes. This would ensure that these protection processes have institutional foundation to

National and World Heritage listings provide national and international recognition, help protect environmental, social, heritage and cultural values and can generate economic benefits with indirect and direct employment opportunities. Importantly, development is not affected if there are no impacts on the World Heritage values. Developments that may have a potential effect on the World Heritage values are required to be referred to the Australian Minister for the Environment.

Archaeological and heritage values

There is still not much known by western science about the cultural heritage of Exmouth Gulf as limited research and documentation has been undertaken to date. Warnangura (Cape Range) – Exmouth Gulf landscape is internationally and nationally significant and demonstrates occupation of at least 32,000 years, with some research suggesting habitation of first Australians up to 50,000 years.²⁰

Traditional Owners' knowledge and song lines, in conjunction with the archaeology, supports the interconnectedness of the Gulf, Nyinggulu (Ningaloo) Reef and Warnangura (Cape Range) being a singular shared cultural landscape.

There is a need for future research including intertidal and underwater heritage surveys. There is also an opportunity for Traditional Owners and Ranger training to bring together Aboriginal knowledge systems and science.

The Taskforce notes the importance of this research and assessment of significant sites that provide Traditional Owners autonomy over cultural and intellectual property including repatriation of cultural materials and ancestral remains.

deliver against the necessary timeline for completion.

¹⁸ UNESCO 2024, Operational Guidelines for the implementation of the World Heritage Convention. The Criteria for Selection, accessed 21/01/2025

¹⁹ UNESCO 2011, Decisions adopted by the World Heritage Committee at its 35th session. WHC-11/35.COM/20, Paris, UNESCO Headquarters.

²⁰ K Morse 1993, 'Shell beads from Mandu Mandu Creek rockshelter, Cape Range Peninsula, Western Australia older than 30,000 years'. Antiquity 67, 877–883.

Further research would ensure:

- place and records are documented and managed
- cultural integrity is preserved for future generations
- support for National and World Heritage listing/management nomination processes.

Additional values and ecological linkages

The Taskforce appreciates that significant environmental values and ecological linkages sit outside the NTGAC native title determination. The Taskforce supports pursuing complementary protection mechanisms for the north-eastern intertidal area of the Exmouth Gulf, including Urala Creek and parts of Urala Station, for its key environmental and cultural values (Appendix 3). This area sits within the Shire of Ashburton.

Given this sits outside the NTGAC determination area, protection planning opportunities should be explored by Government through consultation and engagement with BTAC.

The ecological significance of the north-eastern Gulf and adjacent Pilbara coast includes habitat values for the critically endangered green sawfish, shovelnose ray, and juvenile prawn and fish species with its mangroves and algal mats. There are broader Gulf ecosystem services and benefits, particularly the important role of the wetland in supplying nutrients to the Gulf. The area is also highly valued by recreational fishers for its world-class wilderness fishing and camping experiences.

As outlined in the 2021 EPA Exmouth Gulf strategic advice, the eastern and southern portions of the Exmouth Gulf have been recognised as a significant environmental asset, with multiple recommendations for inclusion in the conservation estate over decades. Recognised in 1993 by listing as a wetland of national importance in *A Directory of Important Wetlands in Australia*, the eastern Gulf is described as 'an outstanding example of tidal wetland systems of low coast of northwest Australia, with well-developed tidal creeks, extensive mangrove swamps and broad coastal flats'.²¹

Aligned with the EPA's strategic advice, some Taskforce members representing a wide range of interests noted that large-scale industrial activities and development would be incompatible with this globally significant and ecologically important area of the Gulf. Some members also noted that social and economic values were important considerations for the ongoing management and sustainability of the Exmouth Gulf and surrounds.



Eastern Exmouth Gulf mangrove and algal mats. Image: Wendy Thompson

²¹ DCCEEW 2024, Australian Wetlands Database – Directory of Important Wetlands, Australian Government, 2024 <u>Australian</u> <u>Wetlands Database - Directory Wetland Information Sheet</u>.

2. Protection of the Cape Range Subterranean Waterways

Recommendation and advice

Enhance the protection of the Cape Range Subterranean Waterways (CRSW) by:

- engaging with the Australian Government on expanding the National Heritage listing from existing boundaries to the Western Gulf foreshore
- investing in targeted research and monitoring to improve knowledge that will underpin the long-term protection
- exploring appropriate planning, environmental and water policy mechanisms to incorporate enhanced protections, and
- partnering with Nganhurra Thanardi Garrbu Aboriginal Corporation for knowledge gaps, cultural significance recognition, surveying programs, management and protection activities.

Matters considered by the Taskforce in informing their advice

Areas of Warnangura (Cape Range) and the Nyinggulu (Ningaloo) Peninsula form part of the World Heritage listing for their biodiversity values including their subterranean fauna, karst limestone formations, aquatic environments, marine connections and biodiversity.

The subterranean fauna found on Warnangura (Cape Range) Peninsula is highly diverse and globally significant, with the fourth highest subterranean fauna diversity in Australia and one of the highest in the world.²² At least 83 subterranean species occur on the Peninsula, including ten and eight conservation listed stygofauna and troglofauna species, respectively.²³

The subterranean waterways within Warnangura (Cape Range) and the Nyinggulu (Ningaloo) Peninsula, known as the Cape Range Subterranean Waterways (CRSW)

(Figure 3, <u>Appendix 7</u>), provide important habitat for subterranean fauna and:

- are listed as a wetland of national importance in the *Directory of Important* Wetlands in Australia for their subterranean aquatic fauna values
- are the only example of a mainland karst wetland in arid north WA
- meet two Ramsar Criteria for listing as a Wetland of International Importance.

Taskforce members recognise the national and global importance of the CRSW, including the cultural and spiritual significance to Traditional Owners. Subterranean fauna occur both inside and outside the boundaries of the Cape Range National Park and are vulnerable to extinction due to their highly specialised habitat, lifecycle requirements and geographic isolation.

The Taskforce heard from a range of experts on the uniqueness of the CRSW including the karst system and subterranean fauna.

²² UNESCO 2011, Decisions adopted by the World Heritage Committee at its 35th session. WHC-11/35.COM/20, Paris, UNESCO Headquarters.

²³ SM Eberhard, & FG Howarth 2021, 'Undara Lava Cave Fauna in Tropical Queensland with an Annotated List of Australian Subterranean Biodiversity Hotspots'. *Diversity* 2021, 13, 326.



Opening to karst system on Cape Range peninsula. Image: Wendy Thompson

Karst system

Karst is a landform type found on soluble rocks, characterised by underground drainage systems with sinkholes and caves.

Key characteristics and values of the karst system include:

- limestone system of thousands of kilometres of underground caves and waterways home to ancient subterranean fauna
- an anchialine system: a cave system with a subterranean connection to the ocean, influenced by tides and tends to be stratified
- caves found in the sides of gorges and escarpments have been used for over 32,000 years for habitation and ceremonial uses by Aboriginal people²⁴
- World Heritage listing recognised for biological diversity values (e.g. subterranean fauna)
- National Heritage listing additional protections including indigenous values, karst, anchialine/groundwater ecosystems and the fauna they support; extends beyond World Heritage boundaries on the Nyinggulu (Ningaloo) Coast
- particularly sensitive environments with low capacity to cope with disturbance and cannot be restored if degraded.

24 K Morse 1993, 'Shell beads from Mandu Mandu Creek Rockshelter, Cape Range Peninsula, Western Australia older than 30,000 years'. Antiquity 67, 877–883.

Subterranean fauna

Key characteristics and values of subterranean fauna include:

- blind and usually colourless animals that live in groundwater (stygofauna) and underground voids and caves (troglofauna)
- slow growth and long reproduction cycles making them slow to adapt to and recover from environmental changes
- highly diverse species and communities, rare, and not found elsewhere
 - » Bundera Sinkhole and Camerons Cave are examples of significant karst features and contain distinctive and significant subterranean fauna, including listed species and threatened ecological communities (TECs): Cape Range Remipede Community Bundera Sinkhole and Camerons Cave TECs.
 - » two of only three known vertebrate stygofauna species in Australia, the conservation significant blind gudgeon (Milyeringa veritas) and blind cave eel (Ophisternon candidum) (both listed as vulnerable under both the BC Act and EPBC Act).

The subterranean karst system of Warnangura (Cape Range) supports some of the most unique and diverse anchialine stygobitic and terrestrial troglobitic cave fauna in the world.

Pressures and threats

Potential impacts from development to the karst system and subterranean fauna were highlighted by the EPA as a concern, and it was recommended that a precautionary approach be applied to any development or activities that may impact them. The Taskforce also notes the opportunity for a precautionary approach for groundwater allocation limits as it relates to potential pressures on the groundwater abstraction on the subterranean environment.

Pressures and threats to the CRSW include:

- climate change
- hydrological changes, for example excessive groundwater abstraction, reinjection
- water quality changes or wastewater disposal

- contamination rubbish dumping, toxic wastes
- pollution
- · introduction of exotic species
- removal of karst for mining/infrastructure
- disturbance from uncontrolled access (e.g. visitors and divers disturbing layers of the waterbody)
- increased nutrient and sediment loads
- fire
- destabilisation and erosion.

Planning and policy mechanisms

The Taskforce considered a range of protection mechanisms across legislation, policy and management. A multi-faceted, agile solution was favoured over a one-size-fits-all approach (Appendix 6).

The Taskforce agreed that enhanced protections to the CRSW could be delivered through exploration of appropriate planning, environmental and water policy mechanisms. There are opportunities to consider existing frameworks such as those contained in the Shire of Exmouth's local planning scheme, Department of Defence Environmental Policy suite and the policy framework under the EP Act.

Under the State planning framework, State Planning Policies (SPP) provide the highest level of planning policy control and guidance in WA and are primarily directed towards broad general planning and facilitating the coordination of planning throughout the state by local governments.

Statement of Planning Policy 6.3 – Ningaloo Coast (2004) (SPP 6.3) refers to the protection of high conservation areas such as the Nyinggulu (Ningaloo) Marine Park, Warnangura (Cape Range) National Park and surrounds but does not explicitly refer to the CRSW. State Planning Policy 2.6 – State Coastal Planning Policy (2006) (SPP 2.6) guides decision making within the coastal zone and takes into account its values, including scenic, aesthetic and ecological qualities; recreational opportunities; and social, Indigenous, cultural and economic importance. SPP 2.6 policy objectives include

to protect, conserve and enhance coastal zone values, particularly in areas of landscape, biodiversity and ecosystem integrity, Indigenous and cultural significance. The policy refers to coastal limestone but excludes specific reference to subterranean waterways. The Taskforce recognised the opportunity to engage in future reviews of SPP 2.6 and SPP 6.3 to advocate for preservation and integrity of the significant values of Warnangura (Cape Range) karst formations and associated subterranean waterways. The Taskforce noted SPPs require significant consultation, high-level approval processes and lengthy timeframes to develop and review.

As statutory policies under the EP Act, Environmental Protection Policies (EPPs) also provide opportunities for enhanced protection. EPPs provide independent protection for the environment above and beyond the assessment and authorisation of proposals and schemes. EPPs are in place for the Peel Inlet Harvey Estuary and the Western Swamp Tortoise Habitat. Given the extensive areas of karst landforms throughout WA, protection of karst through an EPP could be investigated or an EPP developed specifically for the CRSW could be established for enhanced protection.

Alternatively, a State Environmental Policy (SEP) could be developed, similar to the *State Environmental (Cockburn Sound) Policy 2015*. The Cockburn Sound SEP guides the management of Cockburn Sound to protect its values and ensures the values are considered in decision-making for ongoing and new uses of Cockburn Sound. SEPs are non-statutory instruments, approved by Cabinet for adoption on a whole-of-government basis.

Consideration could also be given to incorporate the expansion of the Conservation Estate under the CALM Act to consider areas not currently protected. Noting the State Government's existing commitment to protect Qualing Pool and Camerons Cave as Class A Reserves, which may expand protections for the subterranean environment pending final boundary determinations. Traditional Owners in the 2024 ILUA authorised an expanded Class A reserve boundary, which protects both these sites, taking into account the cultural and environmental value of the subterranean environment.

State water policy mechanisms provide potential for further protections of the CRSW. *Draft SPP 2.9 Water Resources* includes an objective to protect, and improve the environmental, social, cultural and economic values of the State's water resources. *Draft SPP 2.9 Planning for Water Guidelines* includes 'identify potential impacts on sensitive water resource areas, marine reserves, karst systems or declared rare flora or fauna habitats'. ²⁶

Sensitive water resource areas include habitats of specially protected water dependent fauna and the area within one kilometre of groundwater dependent threatened ecological communities and groundwater dependent priority ecological communities. Given they are identified in the guidelines, there may be opportunities to engage in future reviews to advocate for additional protection of the significant CRSW values.

Water policy

The Western Australian water in mining guideline sets out how to meet DWER's regulatory requirements for mining projects. It provides advice on water management in mine planning, and is focused on groundwater licence applications, and applicable for surface water licences. It requires identification and mapping of water dependent ecosystems including cave and aquifer ecosystems including stygofauna. There may be opportunities to further specify protection of the CRSW in future reviews.²⁷

The Exmouth Groundwater subareas allocation plan²⁸ sets the policies and principles for the sustainable allocation of groundwater resources in the Exmouth groundwater subarea. The plan recognises the importance of the CRSW and sets an expectation that water quality and level will not be impacted to protect these habitats.

Groundwater allocation limits

In 2024, DWER reviewed its groundwater allocation limits, including both fresh and saline groundwater resources across Warnangura (Cape Range) Peninsula. The review considered how much groundwater should remain in the aquifer to support groundwater dependent environmental, heritage and social values, including the CRSW and to meet the risk of potential future climate change. The review is supported by an assessment of the groundwater dependent values of Warnangura (Cape Range) Peninsula including current knowledge and knowledge gaps.

DWER and Water Corporation continue to work together to develop options to meet immediate and future demand for public water supply for Exmouth, with a focus on sustainable options that consider the future climate and the CRSW.

National Heritage listing

The Taskforce notes the existing National Heritage listing of the Nyinggulu (Ningaloo) Coast is protected under matters of national significance (MNES; EPBC Act). This includes the karst, anchialine and groundwater systems and the subterranean fauna they support. The listing also includes Indigenous values relating to archaeological sites/rock shelters and the use of marine resources.

A clearly defined contemporary three-dimensional map of the karst system is imperative. The updated mapping could be compared with the National Heritage boundary and would provide a clearer understanding of gaps in protection, the existing National Heritage listing and assist in identifying current and future pressures and threats.

To provide additional protection for the CRSW, engaging with the Australian Government on a nomination to expand the National Heritage listing boundary is included in the recommendations. In developing this recommendation, the Taskforce notes a nomination requires:

- free, prior and informed consent of NTGAC as the Traditional Owners
- support from the State Government for the process.

²⁵ DPLH; WAPC 2021, Draft State Planning Policy 2.9 Planning for Water. WA Planning Commission, WA.

²⁶ DPLH; WAPC 2021, Draft State Planning Policy 2.9 – Planning for Water Guidelines for the implementation of State Planning Policy 2.9 Planning for Water. WA Planning Commission, WA.

²⁷ Department of Water 2013, Western Australian Water in Mining Guideline updated in November 2024. Department of Water, WA.

²⁸ Waters and Rivers Commission 1999, <u>Groundwater allocation plan for the Exmouth groundwater subarea</u>, Water resource allocation and planning series. report no. 1, Water and Rivers Commission, Government of WA.

CRSW knowledge gaps

The Taskforce noted the significance of connectivity and cultural integrity of the CRSW, subterranean fauna and karst system and recognised that knowledge gaps remain.

Much remains unknown about the biology, distribution and diversity of subterranean fauna inhabiting the CRSW. New species have been found but not formally described and it is likely that there are other new species still to be identified from further surveys and research.

There is a need for updated surveys, identification, sampling, mapping, water quality and biodiversity monitoring to better understand and effectively manage this unique fauna, their ecosystem and their connections within and between the karst systems and the Gulf.

The Taskforce emphasises the need for investments in targeted research and monitoring to fill knowledge gaps to further inform connectivity (karst and species), maintain cultural integrity and ensure the long-term protection of the CRSW, including, but not limited to:

- hydrological and geological mapping of the waterways, karst caves and species distributions (including the nearshore marine environment, where relevant, given known CRSW expression, such as Qualing Pool)
- surveys subterranean fauna community characterisation (e.g. environmental DNA [eDNA] analysis), identification of species and species ranges, extent of the CRSW
- cultural values mapping
- resampling of existing boreholes to gather further information about the ecological community/communities
- identification of habitat requirements to help inform impact assessment and risk management
- toxicology analyses and tolerance threshold determinations for fauna and flora
- water quality monitoring and determination of limits of acceptable change

- factors influencing spatial and temporal distribution
- monitoring (e.g. fauna, ecosystem condition, pollution, invasive species etc.)
- impacts of climate change on communities and habitat.

There are opportunities to continue investment into addressing CRSW knowledge gaps through partnerships with State Government agencies, Traditional Owners and organisations such as the WA Biodiversity Science Institute (WABSI) to deliver outcomes and research (e.g. habitat and species distribution mapping).

Indigenous-led management

The flow of freshwater from Warnangura (Cape Range) into the Gulf through the subterranean waterways brings nutrients into the Gulf, supporting its ecology. The nutrients empty through channels in the western shallows, attracting a variety of marine creatures from dugongs to rays to humpback whales and their calves. Traditional Owners have always had cultural knowledge of this system, which is only now being understood by and reflected in western science.

Given the cultural significance and deep connection Traditional Owners have with the CRSW, it is vital that NTGAC and cultural knowledge holders are partners in addressing knowledge gaps, supported with co-management opportunities and empowered with pathways to lead and inform the future management of these globally significant waterways.

Partnering collaboratively with NTGAC will enable the integration of culture and scientific knowledge and Indigenous-led management. Furthermore, partnerships provide up-skilling, training and collaboration opportunities in the protection and management of subterranean species and their habitats.



Osprey on Commonwealth property sign, Bundegi beach. Image: Wendy Thompson



Emus at the Exmouth Golf Club. April 2025. Image: Wendy Thompson



Exmouth Boat Harbour. April 2024. Image: Wendy Thompson



 ${\bf Exmouth\ Gulf\ Task force\ site\ visit\ to\ Sea\ Harvest\ Exmouth\ facilities.\ August\ 2023.\ Image:\ Troy\ Sinclair}$

3. State of Exmouth Gulf Reporting Framework

Recommendation and advice

Establish an ongoing State of Exmouth Gulf reporting framework.

A structured reporting framework would assist in continuing to address knowledge gap priorities and inform decision-makers on outcomes to ensure long-term sustainability and resilience of the Gulf and surrounds.

A State of Exmouth Gulf Reporting Framework (SOEG) would provide a structured means of establishing and documenting environmental values, baseline data, and identifying knowledge gaps, trends and risks, in addition to collating information on economic, social and cultural values. This approach would also provide a mechanism to transparently communicate identified trends and risks to Government, stakeholders and the community, which can be used to inform management decisions and opportunities.

A structured reporting framework would be underpinned by:

- driver, pressure, state, impact and response (DPSIR) conceptual models, capable of integrating complex interrelated issues such as climate change, biodiversity and sustainable development
- regular reviews to remain fit-for-purpose, adaptable and responsive to the unique environment of the Gulf
- regularly updating ecosystem-based reporting for Gulf environmental values including but not limited to: marine and coastal fauna surveys (e.g. megafauna prevalence), subterranean waterways and groundwater monitoring, water and sediment quality monitoring, benthic habitat monitoring and the status of key species associated with commercial and recreational fishing
- social and economic considerations for the Gulf, that recognises and supports the communities, stakeholders, tourism and commercial and recreational fishing sectors that value and use the Gulf

 sustainable investment into addressing knowledge gaps and research needs that supports the long-term health, sustainability and management of the Gulf and surrounds.

This approach is supported by a case study and evaluation from WAMSI²⁹ (<u>Appendix 8</u>), which emphasised that the key learnings and opportunities for a structured reporting framework should be:

- regular ecosystem assessment and reporting transfers knowledge to decision-makers, managers and the public
- integrated assessments of environmental, social, and economic factors are the leading approach to evaluate cumulative impacts on ecosystems
- the assessment process is equally as important as the findings it generates.

Structured reporting provides an opportunity to consolidate and collate existing and new data and information. This includes data already collected by Government and partners on the Gulf that may be fragmented in access, analysis and synthesis. The reporting would also assist in identifying emerging issues, informing integrated management and decision making, whilst also providing the community a snapshot of the ongoing health of the Gulf and surrounds. Periodic reassessments approximately every three-to-five years will enable tracking of trends, adaptive responses to updated knowledge and pressures, and informed decision-making that balances protection and sustainable development.

²⁹ Western Australian Marine Science Institution 2025, State of Exmouth Gulf: Reporting Analysis and Framework 2025. Prepared for the Department of Water and Environmental Regulation. Western Australian Marine Science Institution, Perth, WA.

Structured reporting could also deliver coordinated ecosystem-based assessment and reporting, community stewardship opportunities and research along with environmental and cultural outcomes. The SOEG is intended to strengthen the information available to inform decision-makers across organisations and sectors.

Community and cultural stewardship actions are also important for protecting and sustaining the Gulf and surrounds for future generations. There is an opportunity and imperative for the SOEG implementation to actively engage with Traditional Owners, communities and stakeholders, including pastoralists, recreational fishing and tourism operations, for data collection, outreach and reporting outcomes.

SOEG reporting and information should be captured centrally and accessible for government, community and stakeholders. The establishment of a reporting framework for the Exmouth Gulf aims to complement, not duplicate or supplant, the roles and statutory functions any entity.

High-quality information on the state of the Gulf and its surrounds is essential for ensuring the region's long-term sustainability and resilience. Adopting a structured reporting process will provide decision-makers with high-quality, transparent, and policy relevant information to guide protection and management. The framework does not replace the need for regulation and monitoring in the region. Instead, it offers a strategic approach to enhance the capacity of knowledge to inform future decision-making. Structured reporting frameworks exist at State and National levels (e.g. Cockburn Sound, Great Barrier Reef) to guide a fit-for-purpose reporting framework for the Gulf and surrounds.

Matters considered by the Taskforce in informing their advice

State of Exmouth Gulf reporting analysis and framework-

WAMSI in its report to the EPA on the Cumulative Pressures on the Distinctive Values of Exmouth Gulf recommended developing 'a framework to improve our collective ability to enable environmental protection, and to support ecologically sustainable development and cumulative assessment.³⁰ This should be done through continuous and dynamic integration of knowledge of the drivers, pressures, state and impacts of the region'.

The EPA's Exmouth Gulf strategic advice also recommended regular monitoring and reporting on the state of the environment.

WAMSI was commissioned by DWER to provide advice to the Taskforce on a reporting framework suitable for the Gulf and surrounds. WAMSI examined key case studies and developed a proposed framework based on international best practices and key lessons from case studies analyses (Appendix 8).³¹ The case study included the:

- Great Barrier Reef Outlook Report –
 Great Barrier Reef Marine Park Authority
 (GBRMPA) delivers an Outlook Report every
 five years on the health of the reef, as well
 as summary condition of the Reef via a Reef
 Snapshot.
- Australia's National State of the Environment Report – broadscale national assessment of the environment's condition every five years, mandated under the EPBC Act, Cth. Delivered through the Department of Climate Change, Energy, the Environment and Water (DCCEEW) but produced by a committee of independent scientists and subject matter experts.
- Cockburn Sound environmental reporting

 Cockburn Sound Management Council
 (CMSC) reports every three years on
 the overall state of the Cockburn Sound.

³⁰ Ibid.

³¹ Western Australian Marine Science Institution 2025, State of Exmouth Gulf: Reporting Analysis and Framework 2025. Prepared for the Department of Water and Environmental Regulation. Western Australian Marine Science Institution, Perth, WA.

- including water quality and environmental values, guided by a SEP.
- World Heritage Area reporting designated sites are subject to two different reporting processes (periodic reporting and reactive monitoring) to ensure alignment with World Heritage conventions, with variable, site-specific periodicity associated with the reporting.

In WA the CMSC, as an advisory body to the Minister for the Environment provides advice on the management of Cockburn Sound and oversees environmental monitoring and research via a structure reporting framework. Annual and three-yearly reporting are components of the Cockburn Sound SEP. Each year, the Council reports to the Minister and the community on the results of environmental monitoring of the Sound and the extent to which they meet the environmental quality objectives and criteria set in the SEP. Every three years, the Council reports on the overall state of the Cockburn Sound marine area, including trends in water quality and associated environmental values.

Other structured State and National reporting considered outside of the WAMSI case studies included:

- Murray Darling Basin Authority (MDBA)
 evaluates its Basin Plan every five years to
 assess what is working, what is not and
 where improvement is needed. It also
 produces an annual Report Card providing
 an overview of progress towards the Basin
 Plan.
- Geographe Catchment Council (GeoCatch) monitors seagrass through its Keep Watch program to detect changes in seagrass health in Geographe Bay.

WAMSI recommended the DPSIR model as the preferred framework to systematically assess ecosystem health, social and economic values, and management responses. The framework supports the long-term resilience of the Gulf's environment, economy, social and cultural values while fostering collaboration among the community, stakeholders and Traditional Owners.

Investment into knowledge gaps

WAMSI was engaged by the Taskforce through DWER to develop a *Knowledge Review of Exmouth Gulf and Prioritisation of Future Research* (Knowledge Review Report) to include, but not be limited to, gaps identified in the EPA's strategic advice and additional advice using publicly available data.³² The Knowledge Review Report also includes synthesis of current information on bonefish, dolphins and sawfish in the Gulf, as outlined in the Taskforce TOR.

The knowledge gap prioritisation involved an online survey of stakeholders including the Exmouth and Onslow communities, Taskforce members, subject matter experts and researchers who ranked the knowledge gaps in order of priority under themes based on several criteria. Survey themes and outcomes are summarised in Appendix 9.

The top three research themes in need of future research and management focus across the 341 survey participants were:

- 1. industrial development impacts on coastal and marine environments and recreational activities (e.g., footprints, noise, clearing)
- 2. climate change projections for marine and coastal environments (e.g. sea level rise, marine heatwaves, storms and cyclones)
- understanding and maintaining ecosystem health, connectivity, and processes (e.g., nutrient and groundwater flows, spawning and recruitment, land and sea connections, food webs, water and sediment quality).

The top three knowledge gap questions to address as a priority were:

- 1. How could development footprints on the eastern coastline of Exmouth Gulf affect nutrient flows and, in turn, marine life reliant on these nutrient flows?
- 2. How will groundwater systems be affected by expansion of mining activities?
- 3. How is Exmouth Gulf influenced by processes and pathways across the land-sea interface?

³² Western Australian Marine Science Institution 2025, Knowledge Review of Exmouth Gulf and Prioritisation of Future Research. Report to the Department of Water and Environmental Regulation. Western Australian Marine Science Institution, Perth, WA.

The Knowledge Review Report also recommends a suite of research and knowledge projects to address the top gaps, as determined by stakeholders. Noting these do not negate the need to address remaining knowledge gaps already identified in the EPA 2021 strategic advice or those not captured in the report.³³ WAMSI has prioritised future investment projects with approximate costs, timing and resourcing requirements.

The Taskforce recognised that knowledge gaps remain and there is a need for ongoing investment into research and knowledge that supports the long-term protection, sustainability and management of the Gulf and surrounds.

Ongoing scientific, expert and Aboriginal knowledge systems will support evidence-based decision making, monitoring and evaluation to inform SOEG reporting and improve integrated management decisions, whilst also empowering NTGAC.

Climate change

The Gulf is vulnerable to the impacts of climate change, including marine heat waves. Furthermore, the coastal region of WA from Broome to Exmouth is identified as one of the most cyclone prone areas in the country.³⁴ The Taskforce heard from subject matter experts on the potential impacts of climate change to the Gulf and surrounds. They highlighted:

- extreme rainfall events will be more intense, though the exact size of the increases is uncertain and the duration between events may increase
- extreme temperatures are projected to increase
- sea level rise will likely inundate low-lying terrain on the Gulf
- marine heatwaves may become more frequent, extensive, intense and longer with potential impacts on ecosystems and economies.

A severe marine heatwave in February 2025, caused widespread coral bleaching at several sites along Ningaloo Reef including Turquoise Bay, Tantabiddi and Bundegi on the Exmouth Gulf.³⁵ Sea surface temperatures have been recorded up to 4°C warmer than normal, the timing of this heat stress and bleaching is unprecedented and the full impacts are not yet known.³⁶

The Taskforce noted that several climate change knowledge gaps are being addressed through current research including:

- new climate change projections for Exmouth Gulf will be available in 2025 (20km resolution) for key variables (e.g. temperature and rainfall) to the year 2100, providing a better understanding of regional impacts
- further detailed climate change projections (4km resolution) will be available in 2026, enabling detailed risk assessments and further impact modelling
- marine heatwaves risk modelling is being undertaken to look at impacts on marine ecosystems, fisheries, aquaculture and tourism.

The outputs of this research will assist in informing integrated planning and management of the Gulf and surrounds into the future.

Physical aspects of climate change knowledge are continually evolving and improving through advances in climate analysis and modelling. It is critical for all values and users of the Gulf that continued investment into research on the climate impacts, implications and adaptations for the Gulf and surrounds continues to be resourced such as those outlined in the Knowledge Review Report.

³³ Ibid.

³⁴ Rosemary Murphy & Kelly Gudgeon, Australia faces more severe tropical cyclones despite 'average' season forecast, BOM warns, ABC News, 8 October 2024. Australia faces more severe tropical cyclones despite 'average' season forecast, BOM warns - ABC News.

³⁵ Kelly Boden-Hawes & Nicole L. Jones, A powerful force is stopping the Indian Ocean from cooling itself – spelling more danger for Ningaloo, The Conversation, 24 February 2025. A powerful force is stopping the Indian Ocean from cooling itself – spelling more danger for Ningaloo.

³⁶ Ibid.



NTGAC Directors on Country at rockshelf near Qualing Pool with Senior Government executives and Taskforce Chair. September 2024. Image: Wendy Thompson



NTGAC Directors on Country at Camerons Cave with Senior Government executives and Taskforce Chair. September 2024. Image: Wendy Thompson



Humpback whale breaching in Exmouth Gulf. Image: Renee Morgan

4. Independent Coordinating Body

Recommendation and advice

Establish a sustainably funded independent coordinating body, which is to:

- advise the Government on the long-term health and resilience of the Exmouth Gulf and surrounds
- act as a knowledge hub sharing cultural and scientific knowledge, using two-way learning for improved protection of the Exmouth Gulf and surrounds
- · ensure outcomes and learnings are shared through the knowledge hub, and
- undergo review every five years to evaluate its continued value to the Government and the community.

The sustainably-funded independent coordinating body would:

- partner with NTGAC
- be supported by appropriate governance to ensure effectiveness, collaboration and cooperation across sectors and interests
- oversee a robust reporting and information sharing framework
- share perspectives, collect and share existing and new data and information to strengthen the relationships between cultural and scientific knowledge, decision-makers, Defence, stakeholders and the community
- advise Government on the recommendations outlined in this report, including the complementary protection mechanisms
- advise Government and communities on the long-term health and resilience of the Gulf and surrounds
- provide for evaluation of effectiveness for the governance of the body and its functions.

The coordinating body would complement local, State and Commonwealth agencies and Traditional Owners. It would also deliver community stewardship opportunities and research along with environmental and cultural outcomes. The coordinating body is not intended to duplicate or supplant existing

regulatory processes, planning frameworks, or other advisory bodies (e.g. CPC, NCWHAC, EPA), but to strengthen the information sharing and availability to decision-makers across organisations and sectors.

Community and cultural stewardship actions are also important for protecting and sustaining the Gulf and surrounds for future generations. There is an opportunity and imperative for the future coordinating body to actively engage with Traditional Owners, communities and stakeholders, including pastoralists, recreational fishing and tourism operations, for outreach and knowledge sharing.

To ensure data collected is captured centrally and accessible, a community and stakeholder knowledge hub should be established for reporting and information. The knowledge hub would further connect and enhance the relationships between local, State, and Commonwealth decision-makers, Traditional Owners, stakeholders and communities and facilitate the education and outreach of the reporting.

It is recommended that the coordinating body be reviewed every five years to ensure its continued value to the government and the community and ensure it remains agile and fit for purpose.

Matters considered by the Taskforce in informing their advice

Continuation of dialogue and coordination via a coordinating body

Taskforce members agreed there remains a need for continuing dialogue and coordination across Government. A coordination body would support the integrated management of the Exmouth Gulf and surrounds, with an emphasis on empowering and partnering with NTGAC.

Prior to the EPA 2021 Exmouth Gulf strategic advice and the establishment of the Taskforce, there had been a gap in policy, coordination and integrated management for the Gulf. Members noted there were numerous opportunities looking forward and still work to be done, recognising the progress and investments delivered to date.

Co-governance with NTGAC

The Taskforce recognised the importance of empowering NTGAC to lead solutions that incorporate their Indigenous values, knowledge and cultural practices and that the coordinating body should be co-governed with NTGAC.

NTGAC emphasised that a coordinated body would assist to share information and updates on activities and development proposals in the Exmouth Gulf region and potentially streamline their frequent requests for consultation. Co-governance was considered important to the Taskforce to ensure Traditional owners were included in any coordinated body and not overlooked.

Other coordinating and statutory bodies

The Taskforce considered existing coordinating and statutory bodies' structure, governance and functions, including the:

- GBRMPA
- CSMC
- Rottnest Island Authority
- MDBA

- Murujuga Rock Art Stakeholder Reference Group
- Geographe Catchment Council (GeoCatch)
- Peel Harvey Catchment Council
- Conservation and Parks Commission (CPC)
- Ningaloo Coast World Heritage Advisory Committee.

These bodies are largely established under a legislative framework to provide advice, recommendations and regular reporting on the state of the environment to their relevant Minister(s) and key decision makers.

Conservation and Parks Commission

The CPC, a body corporate established under the CALM Act, is particularly relevant for the Gulf and surrounds. It is a vesting and management body for terrestrial and marine conservation reserves and other reserves across WA. The CPC's role is to conserve the State's biological diversity and ensure the conservation estate is managed in an ecologically sustainable manner.

A key function of the CPC is to establish performance criteria for evaluating, and periodically assessing how well the DBCA implements management plans. The evaluation of management effectiveness provides a framework for accountability and opportunities for continuous management improvement.

A significant proportion of the land in and around the Exmouth Gulf is already, or is proposed to be, a conservation reserve jointly vested between the CPC and NTGAC and jointly managed by NTGAC and DBCA. This includes the Ningaloo Marine Park, Nyinggulu (Ningaloo) Coastal Reserves, Cape Range National Park, Giralia National Park, Shothole Canyon Conservation Park, island conservation reserves and the proposed Exmouth Gulf Marine Park. In addition, the NTGAC ILUA provides native title consent for a conservation reserve at Qualing Pool and Camerons Cave.

The establishment of any reporting or coordinating body functions aims to complement, not duplicate or supplant, the roles and statutory functions of the CPC and other statutory entities and functions.

Socio-economic importance

The Taskforce recognises that the Gulf and surrounds are enjoyed by a range of users and values for recreation and amenities, and fishing (recreational, charter and commercial), conservation, tourism, Defence, pastoralism, commercial, research sectors, as well as cultural practices.

Defence facilities in the Exmouth Gulf region play important roles in naval communications, air operations, air and land exercises, and space and solar observation. Defence is a significant employer in the Gulf region providing employment at its facilities, including Harold E. Holt, RAAF Base Learmonth, Learmonth Air Weapons Range, Solar Observatory and the Space Surveillance Telescope.

Taskforce members also acknowledged the Gulf's high social values, noting its recreational importance to both the Exmouth and Ashburton communities and visitors (e.g. recreational fishing, boating, whale watching, water-based activities, etc). Improved understanding of the carrying capacity of the natural environment, infrastructure, services and impacts of tourism were key knowledge gaps identified to be addressed by future research and a key consideration in the Shire of Exmouth's Strategic Community *Plan.*³⁷ The Shire's plan also highlighted the importance of services that enable ageing in place and those that support families and individuals at all stages of life. Sustainable economic development and tourism are important objectives for the Shire of Exmouth and Ashburton. Both shires are committed to supporting socio-economic opportunities for their communities and creating viable and vibrant communities.38

Community and stakeholder information resource

The Taskforce heard from a vast range of subject matter experts and researchers on various aspects of the Gulf. This highlighted that there are numerous universities, research organisations and government agencies

undertaking research and projects in the Gulf and surrounds but with no central system to collate and share information.

An information resource would provide a central repository enabling easy access to the community, industry, researchers, government to information and monitoring of the Gulf and surrounds (e.g. SOEG reporting, benthic habitat mapping, research etc.).

The GBRMPA has developed the Reef Knowledge System that provides a 'first stop shop' to research and monitoring information, maps, reports, modelling, datasets, management planning and partner systems. The system provides information to guide evidence-based reef management decisions.

Integrated planning

In addition to the local governments, many State and Commonwealth government agencies play roles in the Gulf underpinned by key legislation (Appendix 4). The Taskforce Interim Report noted that although these legislative and management frameworks are in place they have not provided for an integrated management approach. Coordination has improved since the introduction of the Taskforce and would continue to evolve with a coordinating body through appropriate governance structures.

Planning and management of the Gulf needs to be holistic, flexible, collaborative, participative, evidence-based, integrated and adaptable to changing conditions, incorporating climate knowledge and adaptations and be future-focused.

Planning processes should consider:

- environmental values, processes and rates of change
- climate change impacts and adaptation
- adaptable design
- pressures direct, indirect and cumulative
- social and cultural values
- compatible economic opportunities and growth.

³⁷ Shire of Exmouth 2022, Exmouth Strategic Community Plan – Your Choice. Our future. Shire of Exmouth, WA.

³⁸ Shire of Ashburton 2024, Economic Development Strategy 2024–2028. Shire of Ashburton, WA.

In the context of the high value of the Gulf region to fishing, the Taskforce notes that all WA state waters are managed in accordance with the principles of Ecosystem Based Fisheries Management (EBFM). EBFM is a holistic approach that takes into account all ecological resources, from fish to dolphins and coral reefs, as well as economic and social factors, in deciding how to manage fisheries.³⁹

Continued improvements to integrated management planning and decision making is integral to ensure the protection and sustainability of the unique values of the Gulf and surrounds.



Mulla mulla, Ptilotus exaltatus. Image: Wendy Thompson



Sturt desert pea, *Swainsona formosa* near Exmouth. Image: Wendy Thompson

Future development and activities

The EPA, in its 2021 Exmouth Gulf strategic advice, sets out clear expectations for assessing future compatibility of activities and developments in the Gulf and surrounds. These are set in the context that 'The values of land and sea environments are unique assets of global significance and the consideration of any potential impacts to those values requires a precautionary approach' and that 'any future activities and development must be compatible with the protection of key values'. In setting these expectations, the EPA also states that it 'will scrutinise activities and developments that lock in pressures or impacts for long periods or are likely to induce cumulative impacts' and that there 'is an opportunity to strengthen the protection of the Gulf through avoidance of activities and developments that could use alternative locations'.40

Taskforce members noted that future activities and developments are subject to existing EPA and other relevant regulatory processes.



Termite mounds, eastern Gulf near Onslow. Image: Wendy Thompson

⁴⁰ Environmental Protection Authority 2021, Potential cumulative impacts of proposed activities and developments on the environmental, social and cultural values of Exmouth Gulf in accordance with Section 16(e) of the Environmental Protection Act 1986. EPA WA. 54pp.

³⁹ DPIRD 2025, Fisheries science

5. Nganhurra Thanardi Garrbu Aboriginal Corporation – empowered in their aspirations for Country

Recommendation and advice

Ensure the Nganhurra Thanardi Garrbu Aboriginal Corporation are sustainably funded to be empowered and have capacity for their aspirations for self-determination, stewardship of Country and a pathway for co-leadership in a future coordinating body for Exmouth Gulf and surrounds.

The ability for NTGAC to respond to the needs of all levels of government, industry and stakeholders is heavily dependent on resourcing levels in the organisation as previously identified in the Interim Report. As an entity, NTGAC has only recently been established and requires empowerment and capacity support to allow it to become self-determining.

The Taskforce's recommendation follows the 2024 registration of the ILUA between the State Government and NTGAC that will see a coming together of both parties and in the words of NTGAC:

"...to move forward we have to come together. That we don't take too much and share what we have, for the next generations to grow together and keep Country alive. A lot of people around the world come here to Exmouth, so we can come together with the land and the animals. Respect the Country and the sea and it will respect you. This will work if we keep together."

The late Mr Harold Dickerson Sr

The Taskforce emphasises that a transformative approach is needed where NTGAC is empowered and has greater control and participation in decision-making, partnership and influence, and the design and delivery of programs for stewardship and health of Country, Culture and People.

The Taskforce acknowledges that the State Government is a signatory to the *National Agreement on Closing the Gap* and is committed to working in genuine partnership with Aboriginal people when designing, developing and implementing policies and programs. This includes ensuring Traditional Owners are empowered to share decision making with Government through formal partnership arrangements to accelerate place-based progress.

The State Government's Aboriginal Empowerment Strategy also sets out how State Government agencies will direct its efforts when working with Aboriginal people. The strategy is based on a set of principles, which include empowerment and self-determination, both essential for Aboriginal people's wellbeing. It means shifting to ways that empower Aboriginal people and communities to take an active role in building strong foundations and futures, building up resilience, capability, healing and independence, in essence self-determination.41 The Taskforce recognises the importance of working in ways that build on the strengths and expertise of Aboriginal people's cultures, identities and ways of working. It is in this context that the Taskforce used the term co-leadership to define the partnership and empowerment in decision making.

⁴¹ Government of Western Australia 2021. The Aboriginal Empowerment Strategy: Western Australia 2021–2029 Policy Guide.

The Taskforce supports NTGAC to be empowered in shared decision-making and for genuine partnership equity in managing Country. Healthy Country = Healthy People.

To fulfil their stewardship aspirations, the NTGAC require support, including:

- capability and capacity building, including individual and organisational education, training and access to professional expertise and mentoring
- organisational support including governance, infrastructure, administration, business development and acumen and legal expertise (e.g. managing finances, cultural and historical research, heritage, employment management such as payroll and project management)
- a cultural centre, where artefacts can be showcased, tourists can engage with Traditional Owners on Country, and stories shared
- ongoing development of and implementing outcomes of the Nyinggulu Sea Country Plan ensuring Country and People continue to be intrinsically connected
- design and delivery of On Country programs, including managers, independent rangers, researchers, traineeships and other priorities identified through the Nyinggulu Sea Country Plan and ILUA processes that enable young people to work On Country and reconnect with culture, with NTGAC determining the priorities
- direct employment and economic, social, cultural and environmental opportunities, as well as sustainable livelihood opportunities On Country including developing pathways to senior roles
- autonomy over cultural property, including repatriation of cultural materials and ancestral remains from interstate and overseas and the development of a cultural intellectual property protocol
- Traditional Owner-led research, monitoring and management, partnered with western science (e.g. research to find and use traditional names for places, cultural mapping, conservation partnerships with non-government organisations and

- researchers, research and monitoring of the CRSW)
- identification and development of partnerships to support NTGAC priorities and provide economic opportunities, aligned with cultural values and obligations, with government and/or other strategic partners that recognise and celebrate Traditional Owners' Country (e.g. fishing charters, eco-tourism, carbon farming, blue carbon, cultural competency courses for partners and businesses operating in the Gulf etc.).

"Exmouth Gulf is important to our people for many reasons. Our customary activities within the Exmouth Gulf are important for our culture, maintaining our traditional practices, nurturing our relationship with the land, waters and animals, caring for our significant places and for being able to share our Country and knowledge, now and into the future.

We know the Gulf is under growing pressure. We see the effects of this every day, both from our firsthand experiences being in the Exmouth area and through our position as NTGAC Board members having to deal with proponents whose projects have direct and significant impacts on the Gulf.

Being appropriately resourced will mean we can consider and co-design what is needed for the protection of the Gulf's significant cultural and environmental values."

NTGAC Board

"There are going to be very serious impacts of government plans for Nyinggulu. They need to realise it's all connected – the reef, range and Gulf. It's a very small area. There is so much going on already in that small area. It can't sustain much more. We can see it. We worry for Country, for the animals with all that going on. There needs to be a shift in mindset. Once the balance is tipped it's never going to come back."

NTGAC Board

Being appropriately empowered is central to NTGAC being self-sustained, co-stewards of Country. The Taskforce emphasises that without appropriate resourcing, capacity and empowerment, as identified in the Interim Report, NTGAC will not be able to meet their stewardship aspirations.

Matters considered by the Taskforce in informing their advice

In representations to the Taskforce the NTGAC emphasised the importance of respect, connectivity, balance and harmony. They 'want the exceptional cultural and natural values of the Gulf to take priority over economic agendas' and noted the importance of doing things the cultural way. NTGAC expressed the following:

- We are the carers of Country, we are the voices of our ancestors past, they are no longer here, we are still telling the same stories.
- Our government needs to listen to Traditional Owners and work with us as a body, our stories have been passed on from generation to generation.
- Stewardship by government and Traditional Owners needs to come closer together.
- If you take from one place it will impact on another. We, as Traditional Owners have responsibility to care for Country and maintain the balance.
- We would like to have our own office space, administration and a place to showcase artefacts (like a museum). A place where people can see Traditional Owners on Country and hear our stories.
- We don't own Country, Country owns us.
- · Have to preserve and protect Country.
- In our world, everything fits together like a jigsaw puzzle.
- The cave system and islands are very precious, and we want them protected.
- We want to protect Country, when it's gone, it's gone.
- Water is the substance of life, we must look after it, maintain it, we sing out for rain, we

- look after water, it's important for animals too, it is really precious.
- It's the Traditional Owners/First Nations duty to show people what we love.
- It's hard to get everyone to work together on the Country we want to protect.
- The Taskforce needs to continue on, we all need to keep working together.

The Taskforce recognises that Traditional Owner-led stewardship of Country needs the underpinning of government and NTGAC to come together openly and improve integration and connection. The Taskforce supports a transition towards a Traditional Owners led integrated management approach, where NTGAC increasingly takes a co-leading, co-designing role in the protection, planning and management decisions for the Gulf and its surrounds. This requires an agreed transition plan and additional support and capacity for NTGAC to be successful in this longer-term aspiration.

The empowerment of NTGAC in the decision-making process ensures decisions are appropriately informed from cultural knowledge and values perspectives. For this to occur within existing processes, NTGAC needs to be appropriately resourced so that they can review, assess and advise in a timely and culturally appropriate manner.

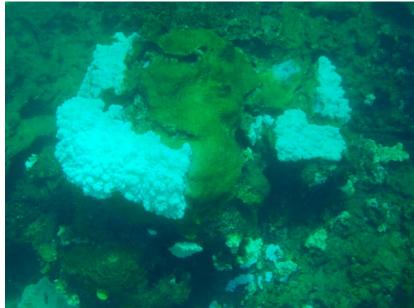
The NTGAC has emphasised their key recommended actions for the future of the Gulf to the Taskforce. Those actions include for the government and the Taskforce to protect the cultural and natural values of the Gulf, including:

- a jointly managed whole-of Gulf marine park, be created over the wider Exmouth Gulf (previously recommended in the Interim Report)
- support ongoing development of connected Country planning and the implementation of the Nyinggulu Sea Country Plan, noting the inherent interconnectedness of the Ningaloo Reef, Cape Range and Gulf. Culturally NTGAC doesn't separate the Gulf from Country, further planning work is essential to incorporate Country as a whole

- recognise the cultural importance of water and subterranean systems to Traditional Owners and the critical need to protect waterways, particularly Warnangura (Cape Range) and the Nyinggulu Peninsula
- support the establishment of an independent PBC ranger program.



Taskforce Secretariat viewing Gulf marine life and bleached coral at South Muiron Island. Image: Jenny Shaw



Bleached coral, South Muiron Island. May 2025. Image: Wendy Thompson



Schools of fish and fluorescing coral, South Muiron Island, May 2025. Image: Wendy Thompson

Appendices

Appendix 1: Taskforce events and engagements

Table 3 Taskforce site visits

Date	Location	Description		
2 September	Exmouth	proposed Ningaloo Lighthouse Resort		
2022		proposed Yardie Creek Road realignment		
		interpretive displays		
		turtle nesting beaches		
		humpback whale migration		
		Camerons Cave, Dozer Cave, Qualing Pool		
		Tantabiddi Sinkhole		
		Tantabiddi Boat Ramp and proposed redevelopment		
		Sea Harvest Fisheries		
9 March	Exmouth	Water Corporation Wastewater Treatment Plant		
2023		Key Defence sites:		
		» Point Murat Pier		
		» Bundegi Beach		
		» Harold E. Holt Area B – Space Surveillance Telescope		
10 August	Exmouth	Sea Harvest facilities and Marine Stewardship Certification process		
2023		Exmouth Boat Harbour and masterplan		
		Exmouth Gulf boat charter and marine megafauna		
14 March 2024	Exmouth	 Qualing Pool, Camerons Cave, Marina, Town Beach Chair with Traditional Owners 		
		Gulf boat trip Chair with Traditional Owners, GDC, DBCA		
		Minderoo Exmouth Research Lab		
22 August	Exmouth	Grant Griffin Exmouth Birdlife		
2024		Darren Brooks Cape Range Subterranean Waterways Karst System		
		Ningaloo Aquarium and Discovery Centre		
		 Water Corporation Proposed Sites (groundwater expansion and desalination options) 		
		Key Defence sites		

Table 4 Taskforce meetings

Date	Location	Description
1 September 2022	Exmouth	Meeting 1
18 November 2022	Perth	Meeting 2
10 March 2023	Exmouth	Meeting 3
15 June 2023	Perth	Meeting 4
11 August 2023	Exmouth	Meeting 5
7 September 2023	Online	Extraordinary meeting – Taskforce Interim Report finalisation
23 November 2023	Perth	Meeting 6
15 March 2024	Exmouth	Meeting 7
13 June 2024	Perth	Meeting 8
23 August 2024	Exmouth	Meeting 9
3 December 2024	Perth	Meeting 10
14 May 2025	Exmouth	Meeting 11



Cyanobacterial mats with tessellated plate structure. Urala Station. May 2025. Image: Naomi Rakela

Table 5 Presentations delivered to the Taskforce

Date	Presentation	Presenter
2 September 2022	EPA 2021 Section 16(e) Strategic advice report: Potential cumulative impacts of proposed activities on the environmental, social and cultural values of Exmouth Gulf	DWER
	DBCA's work and plans for the Exmouth Area	DBCA
	ABC News Video – Urala Creek in the NE Corner of Exmouth Gulf	DWER
18 November 2022	Environmental values of the Qualing Pool and Mowbowra Creek Areas	Dr Ben Fitzpatrick, Oceanwise Australia
10 March	Learmonth to Exmouth Estuary Salinity Snapshot	DWER
2023	Exmouth Gulf Habitat Mapping	DPIRD
	Exmouth Water Source Planning	Water Corporation
	Exmouth Water Allocation Planning	DWER
	NTGAC Cultural Knowledge	NTGAC
	Update on Terrestrial and Marine Park Planning – Marine Reserves under the CALM Act	DBCA
15 June	New Conservation Estate update	DBCA
2023	Marine Environmental Values of Northwestern Exmouth Gulf	Dr Ben Fitzpatrick, Oceanwise Australia
	Commercial Fishing Values of Exmouth Gulf	WA Fishing Industry Council Inc
10-11 August 2023	Whale Sharks, Giants of Ningaloo Reef and Coral reefs of Exmouth	Dr Geoff Taylor
	Exmouth Fly Fishing	Jono Shales, Exmouth Gulf charter fishing operator
	Groundwater Allocation Limit Review	DWER
	Kailis / Sea Harvest Operations and Qualifying for Marine Stewardship Council (MSC) Certification	Sea Harvest
	MSC Certification	DPIRD
23 November	Cape Range Subterranean Fauna	Dr Bill Humphreys
2023	Exmouth Water Source Planning	Water Corporation
	Mardie Offset Research Program	DWER
	Exmouth Freshwater Cultural Values Mapping	DWER
	Exmouth Gulf, EPA's Role, Strategic Advice and Current Proposals	Prof. Matthew Tonts, Chair EPA
6 March 2024	Cape Range Subterranean Waterways and Subterranean Fauna Values	DWER

Date	Presentation	Presenter
14–15 March 2024	Assessing Exmouth Gulf's Reef Islands and Viability as a Coastal Marine Habitat. Understanding Location and Utilisation of Elasmobranchs including Green Sawfish.	Dr Joshua Bonesso, UWA
	Minderoo Exmouth Research Lab (site visit)	Minderoo
	Exmouth Gulf Terrestrial and Marine Reserves	DBCA
	'Cumulative Pressures on the Distinctive Values of Exmouth Gulf' Report	Dr Jenny Shaw, WAMSI
	Aboriginal heritage legislation	DPLH
13 June 2024	Climate Change Projections and Impacts on Exmouth Gulf	Associate Professor Jatin Kala, Murdoch University and DWER
	Exmouth Gulf Marine Megafauna	Dr Lyn Irvine, Irvine Marine Fauna Research
	Exmouth Water Supply Planning Update	Water Corporation
	Tourism and the Exmouth Gulf	Tourism WA (JTSI)
23 August 2024	Great Barrier Reef Marine Park Authority: Governance, Structure and Key Learnings	GBRMPA
	World Heritage Listing – Cape Range Subterranean Waterways	DCCEEW
	Cockburn Sound Management Council: Governance, Structure and Key Learnings	DWER
	Baseline Soundscape for Exmouth Gulf	JASCO Applied Science Pty Ltd
30 October	Climate Change Projections in the Exmouth Gulf Region	DWER
2024	Climate Change and the Advancing Marine Heatwave Predictions Project	Dr Nicole Jones, UWA
	Climate Change in the Exmouth Gulf Region and Potential Impacts on Fisheries Stocks and Habitats	DPIRD
	Exmouth Gulf Heritage	Professor Peter Veth and Dr Kane Ditchfield, UWA
	State of Exmouth Gulf Reporting Analysis and Framework	Dr Luke Twomey, WAMSI
3 December 2024	WAMSI update and Prioritisation Survey	Dr Jenny Shaw, WAMSI
	Sawfish in the Exmouth Gulf	Rececca Bateman and Karissa Lear, Murdoch University

Table 6 Taskforce workshops and stakeholder engagements

Date	Location	Description
July-August 2022	Perth	Various stakeholder engagement meetings – Taskforce establishment
11 May 2023	Perth	Taskforce workshop – Exmouth Gulf protections options and recommendations
11 October 2023	Perth	Taskforce presentation 'Safeguarding the Extraordinary Exmouth Gulf' Biodiversity Conference 2023, Listen to Country
7 November 2023	Carnarvon	Taskforce update – NTGAC Annual General Meeting
6 March 2024	Perth	Taskforce workshop – Cape Range Subterranean Waterways protections
21 March 2024	Perth	Taskforce update presentation – EPA Board
20 May 2024	Onslow	Taskforce update - Shire of Ashburton community information forum
21 May 2024	Exmouth	Taskforce update – Shire of Exmouth Council
21 August 2024	Exmouth	Taskforce community information forum
22 August 2024	Exmouth	Taskforce strategic workshop
4 September 2024	Kalgoorlie	Taskforce update – DWER Aboriginal Water and Environmental Advisory Group
10 September 2024	Exmouth	Executive cross-government Exmouth familiarisation and Gulf boat trip (Chair)
30 October 2024	Perth	Taskforce information session and workshop – climate change, marine heatwaves and Exmouth Gulf heritage
18 November 2024	Onslow	Taskforce update – Shire of Ashburton community information forum
1 April 2025	Perth	Taskforce workshop, reporting discussion and marine heatwave presentation
13 May 2025	Exmouth	Taskforce community information forum
15 May 2025	Onslow	Taskforce community information forum

Table 7 Taskforce partnership and knowledge projects

Project title	Delivery/ partner	Project description
State of Exmouth Gulf: Reporting analysis and framework	WAMSI	State of the Gulf reporting framework informed by analysis of comparable environments and WAMSI's Exmouth Gulf knowledge gap reporting prioritisation process.
		An analytical summary that could be delivered through a future Exmouth Gulf coordinating body.
Aerial survey on western Gulf – focused on smaller megafauna (manta rays, dolphins, dugongs)	Irvine Marine Fauna Research	Knowledge gaps for occurrence of marine megafauna along the western edge of Exmouth Gulf. Assess overlap with existing levels of boating activity.
Desktop analysis of humpback whale abundance estimates and spacing behaviour	Irvine Marine Fauna Research	Knowledge gaps for humpback whale use of the Gulf including absolute abundance, density and spacing between groups, using 2018 aerial survey data.
Benthic habitat map	WAMSI	Produce a high resolution intertidal and subtidal benthic habitat map of the entire Exmouth Gulf, based on existing data.
Knowledge Review Report	WAMSI	Deliver a Knowledge Review Report aligned with the Taskforce's TOR. The Report will update knowledge since the WAMSI cumulative study for EPA's strategic advice, with emphasis on focal areas of the marine environment and Taskforce ToR. It will summarise priority areas for future research and projects, and provide approximate costs, timeframes and resourcing requirements for high priority projects.
Nyinggulu Sea Country Plan	YMAC; NTGAC	To provide a framework for Traditional Owners to manage their Sea Country and to capture their aspiration for whole-of-Gulf management. The Sea Country Plan will also inform the marine park planning process and other partnership opportunities for NTGAC.
Monitoring of the baseline environment in Exmouth Gulf	JASCO Applied Sciences (Australia) Pty Ltd	From a single location monitor the baseline marine soundscape in Exmouth Gulf to: » characterise the ambient environment over one-year » quantify using acoustic detections marine mammal presence » characterise the contributions from current anthropogenic activities » collect data on vessels for future reference to achieve specific goals.

Appendix 2: Exmouth Gulf Taskforce Terms of Reference

Exmouth Gulf Taskforce Terms of Reference and membership

Version 2.1, November 2023

1. Terms of reference

Context

The Exmouth Gulf Taskforce (EGT) is established by the Minister for Environment, as an advisory Taskforce, under section 25 of the *Environmental Protection Act 1986* (EP Act). The Taskforce is supported by the Department of Water and Environmental Regulation (the department).

The State Government is committed to an integrated management approach to ensure the conservation and enhancement of the key values of Exmouth Gulf and its surrounds.

The Exmouth Gulf is globally recognised for its significant environmental, cultural and social values and is home to important habitat for marine fauna, including nursing humpback whales, whale sharks and highly valuable mangrove systems.

In August 2021, the Environmental Protection Authority (EPA) published its strategic advice to the Minister for Environment on the potential cumulative impacts of proposed activities and developments on the environmental, social and cultural values of the Exmouth Gulf (EPA Report).

The EPA Report identified that the Exmouth Gulf was fragile and faces increasing pressures on its unique, globally significant environmental, social and cultural values.

In December 2021, the State Government committed to the establishment of a new marine park and conservation reserves in Exmouth Gulf and to implement all of the EPA's recommendations.

Purpose

The EGT focus is to facilitate within government coordination of the environmental management of the Exmouth Gulf and its surrounds.

The EGT focus is to facilitate and coordinate stakeholder and community input into the environmental management of Exmouth Gulf and its surrounds.

The EGT will be the primary forum for stakeholders to inform the government's broader consideration of strategic issues relating to Exmouth Gulf and it surrounds.

The EGT will have an independent Chair appointed by the Minister for Environment and will report to the Minister for Environment.

Scope

The EGT will have a primary role in:

- Sharing knowledge on the state of key values and pressures of the Gulf and its surrounds to inform conservation, planning and management of key values.
- Regular monitoring and reporting on the state of the environment for the Gulf and its surrounds.
- Ensuring the Traditional Owners are considered partners in the conservation, planning and management decisions for the Gulf and its surrounds.
- Input on statutory planning and environmental assessment processes where future decisions are likely to significantly impact on the Gulf and its surrounds.
- 5. Addressing knowledge gaps to improve environmental planning and management of multiple sectors (e.g. tourism, fisheries, conservation, pastoralism, transport).

 Considering the implications of climate change and the need to develop adaptation strategies as part of future conservation, enhancement and management.

The scope of the EGT is to provide the following advice to the Minister for Environment on their exercise of powers under relevant legislation such as the *Conservation and Land Management Act 1984* (CALM Act) and the EP Act:

- Provide a report within 18 to 24 months of its establishment that addresses the information gaps on Exmouth Gulf and its surrounds, including but not limited to:
 - knowledge gaps identified in the EPA's strategic advice (EPA Report) and additional advice on the current status of bonefish, dolphins, and sawfish in the Gulf, and a range of land-based values (e.g. flora and vegetation, fauna); and
 - further information gaps identified through ongoing consultation with targeted stakeholders prior to the first meeting of the EGT.
- Providing specific advice and recommendations as requested by the Minister for Environment including, but not limited to:
 - options to deliver a high level of protection for the Cape Range Subterranean Waterways;
 - options to deliver long-term integrated management of the land and sea, including the establishment of a secure marine reserve over the wider Gulf area that does not adversely impact existing managed commercial fisheries; and adequately considers recreational and charter fishing; and
 - options to inform terrestrial and marine protection planning processes.

Membership

The Minister for Environment will determine the membership of the EGT in consultation with the Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC). Observers will be invited to attend where their specialist knowledge or expertise may be of assistance to the Taskforce.

Roles

Meetings will be conducted in accordance with the Public Sector Commission's *Conduct Guide* for Public Sector Boards and Committees.

Nganhurra Thanardi Garrbu Aboriginal Corporation

NTGAC is the Approved Body Corporate for the Exmouth Gulf and is representative of Traditional Owners and Custodians of the Gulf.

NTGAC representatives will provide guidance on matters relating to the cultural significance of the land and sea environments and in recognition of appropriate negotiation arrangements in NTGAC determined native title areas of Exmouth Gulf and co-designed and jointly managed conservation estate (i.e. marine parks, class A reserves) under the CALM Act.

Chair

The independent Chair is appointed by the Minister for Environment in consultation with NTGAC. The Chair will work with NTGAC and the department to facilitate the EGT meetings, including preparation of the meeting scheduling, review of agenda and papers and subsequent drafting of minutes and communiques, ensuring that meetings are efficient, effective and maintain a strategic focus.

Members - government

Members are appointed to represent their organisation. Their responsibility is to attend all meetings, or provide a proxy, and share relevant information with the Taskforce.

Members are also responsible for facilitating communications regarding the activities of the EGT and key achievements under the EGT with their wider network.

Members - non-government

A call for applications from the Exmouth community shall be made. A selection panel shall be assembled to review the applications and make a recommendation to the Minister for Environment.

Quorum

At a Taskforce meeting, 14 Taskforce members, or their proxy, constitute a quorum. The quorum must include a minimum of one NTGAC member and one Community member.

If required, the Chair will appoint a proxy Chair in advance of the meeting.

Secretariat

Secretariat support to the EGT is provided by the department.

In consultation with the Chair and NTGAC, the Secretariat is responsible for scheduling of meetings; coordination of agendas and associated papers including liaison with all members in the setting of agenda items; and circulation of meeting draft and final minutes and communiques.

Members will be informed about relevant State Government media releases and engagement activities as well as responses to relevant media enquiries.

Reaching Agreement

The collaborative nature of the Taskforce means that outcomes and actions should be mutually agreed wherever possible.

Recommendations to the Minister for Environment will be formed by consensus and if this cannot be achieved, positions will be noted in the record of the meeting and communicated to the Minister.

Meeting Arrangements

Frequency

The Taskforce will generally meet on a quarterly basis. All actions requiring attention between meetings will, as far as possible, be addressed out of session.

Format

Noting that some flexibility is required, at least two meetings are to be held in person in Exmouth. Meetings may also be held remotely.

Duration

Meetings will be scheduled to make best use of members' time and will generally be for about four hours in duration. Notice will be provided to members ahead of each meeting of the agenda and timing.

Confidentiality

To ensure open discussion between members, all matters will be kept confidential to the Taskforce and may not be released to any other party or parties unless specifically agreed to at the meeting. This includes documents provided to the EGT outside of meetings.

Conflicts of Interest

Conflicts of interest will be managed consistent with the Western Australian Government's Conflicts of Interests – Guidelines for the Western Australia Public Sector.

When members believe they have an actual, potential or perceived conflict of interest on a subject, they must declare a conflict of interest to the Chair through the Secretariat as soon as possible after the conflict arises and at least prior to each meeting. All declarations will be recorded on the register.

The Chair will determine the appropriate response, which may include withdrawal from the discussion.

Review

The next review of the Terms of Reference will occur two years from EGT establishment.

The review will be conducted, in consultation with NTGAC and with input from Taskforce members. The findings and recommendations of the review will be provided to the Minister for Environment for consideration.

A survey of members' views will be conducted annually by the department to ensure the Taskforce remains effective in achieving its purpose.

2. Membership

Membership for July 2022 – June 2025 confirmed by the Minister for Environment:

- Independent Chair
- Commonwealth Department of Defence
- Department of Biodiversity, Conservation and Attractions

- Department of Jobs, Tourism, Science and Innovation
- Department of Planning, Lands and Heritage
- Department of Transport
- Department of Water and Environmental Regulation
- Gascoyne Development Commission
- Department of Primary Industries and Regional Development (Fisheries)
- Shire of Exmouth
- Shire of Ashburton
- Nganhurra Thanardi Garrbu Aboriginal Corporation (x2)
- Sea Harvest
- Recfishwest
- Cape Conservation Group / Protect Ningaloo Campaign
- Community Members (x2)



Mangroves in southern Exmouth Gulf. Images: Wendy Thompson

Appendix 3: Exmouth Gulf complementary protection NE indicative boundary

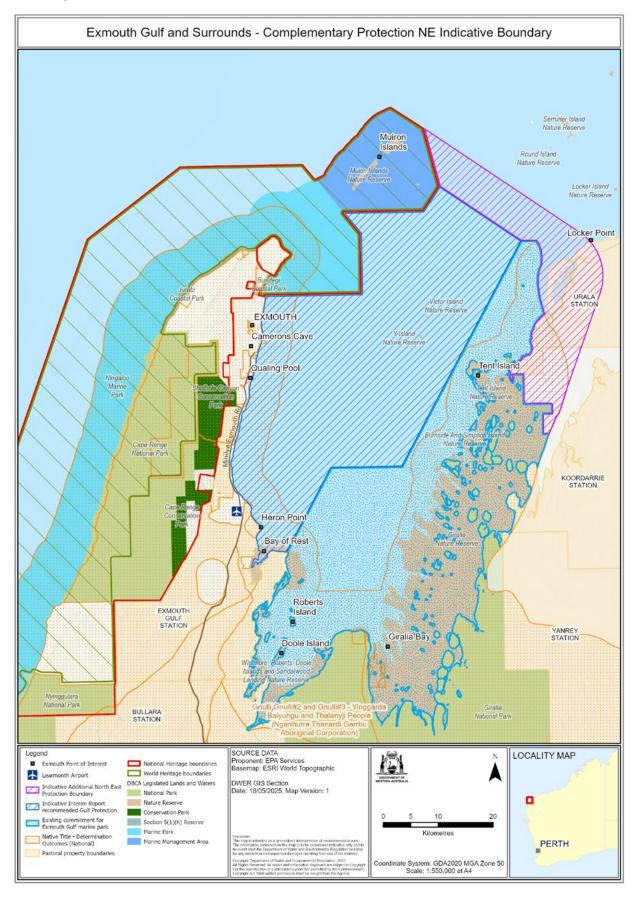


Figure 2 Exmouth Gulf complementary protection NE indicative boundary

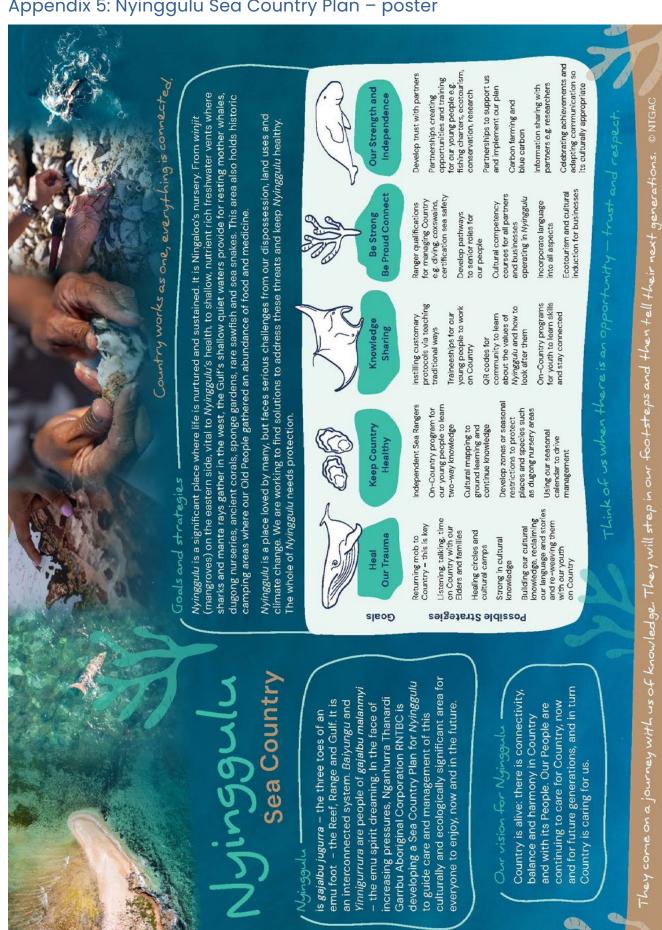
Appendix 4: Government role in Exmouth

Table 8 Summary of Commonwealth, State and Local Government roles in Exmouth and surrounds

Government agencies, boards and organisations	Role in Exmouth Gulf	Key legislation
Australian Government		
Australian Bureau of Meteorology (BOM)	Joint operation of the Learmonth Solar Observatory	Meteorology Act 1955 (Cth)
Australian Department of Defence (Defence)	Operation of key infrastructure, communications and air space	Defence Act 1903 (Cth)
Ningaloo Coast World Heritage Advisory Committee (NCWHAC)	Provides advice to Commonwealth and state on all matters regarding the World Heritage Area	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
State Government		
Department of Biodiversity Conservation and Attractions (DBCA)	Management of land and sea reserves; threatened species conservation	Biodiversity Conservation Act 2016; Conservation and Land Management Act 1984
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)	Relating to the exploration for, and the exploitation of, petroleum resources, geothermal energy resources, and certain other resources, within certain lands of the State Mining or resources legislation from land tenure usage intersect.	Petroleum and Geothermal Energy Resources Act 1967; Mining Act 1978; Offshore Minerals Act 2003
	Assessing potential impacts on resources prospectivity as part of conservation estate classification	
Department of Jobs, Tourism, Science and Innovation (JTSI)	Lead agency for state significant projects and State Agreements	Government Agreements Act 1979
Department of Planning, Lands and Heritage (DPLH)	Administration of pastoral leases and other Crown lands; state and Aboriginal heritage; state land use planning and development	Aboriginal Heritage Act 1972; Land Administration Act 1997; Planning and Development Act 2005
Department of Primary Industries and Regional Development (DPIRD)	Management of commercial and recreational fisheries, pearling and aquaculture; biosecurity management	Pearling Act 1990; Fish Resources Management Act 1994; Biosecurity and Agriculture Management Act 2007
Department of Water and Environmental Regulation (DWER)	Management and regulation of the environment and water resources	Rights in Water and Irrigation Act 1914; Environmental Protection Act 1986
Department of Transport (DoT)	Operation of regional boating facilities (Tantabiddi Boating Facility, Exmouth Boat Harbour, Onslow Beadon Creek Maritime Facility)	Marine and Harbours Act 1981

Government agencies, boards and organisations	Role in Exmouth Gulf	Key legislation
State Government boards		
Conservation and Parks Commission, supported by DBCA	Body Corporate, role to conserve the state's biological diversity and ensure the conservation estate is managed in an ecologically sustainable manner; advising the Minister for the Environment on the development of policies; preparing and dealing with proposed management plans for land and water vested in or under the care, control, and management of the Commission; conducting periodic assessments of the implementation of management plans by those responsible for implementing them.	Conservation and Land Management Act 1984
Environmental Protection Authority, supported by DWER	Independent authority, conducting environmental impact assessments; preparing statutory policies for environmental protection; preparing guidelines for managing environmental impacts; strategic advice to the Minister for the Environment	Environmental Protection Act 1986
Gascoyne Development Commission	Coordinate and promote economic development in the Gascoyne region (Shire of Exmouth area)	Regional Development Commission Act 1993
Pastoral Lands Board, supported by DPLH	Advice to the Minister for Lands on policy relating to the pastoral industry and the administration of pastoral leases	Land Administration Act 1997
Pilbara Development Commission	Coordinate and promote economic development in the Pilbara region (Shire of Ashburton area)	Regional Development Commission Act 1993
Tourism WA, delivered through JTSI	Tourism development and opportunities in Exmouth Gulf region	Western Australian Tourism Commission Act 1983
Western Australian Planning Commission (WAPC), supported by DPLH	Independent advice to Government on integrated urban and regional land use planning and development	Planning and Development Act 2005
Local Government		
Shire of Ashburton	Local government authorities	Local Government Act 1995; Planning and Development
Shire of Exmouth		Act 2005

Appendix 5: Nyinggulu Sea Country Plan – poster



Appendix 6: Key protection mechanisms summary

Table 9 Summary of key protection mechanisms for Exmouth Gulf and surrounds

Title	Instruments	Summary	Key decision-makers/ authority
National Heritage listing	EPBC Act (Cth)	Places of outstanding heritage significance to Australia. Includes natural, historic and Indigenous places that are of outstanding national heritage value.	Commonwealth Minister for the Environment
World Heritage listing	EPBC Act (Cth); World Heritage Convention	Designation for places on Earth that are of outstanding universal value. Only the Australian Government can nominate Australian places. Protected under Australian Government law and in most cases under relevant state law also.	Commonwealth Minister for the Environment; UNESCO World Heritage Centre
Environmental Protection Policy (EPP)	EP Act	EPPs are statutory policies under the EP Act and provide independent protection for the environment above and beyond the assessment and authorisation of proposals and schemes. Provides for the EPA to draft EPPs for consideration and approval by the Minister for the Environment. Once approved by the Minister, EPPs are laid before Parliament, and have the force of law.	WA's Minister for the Environment
State environmental policies (SEPs)	EP Act	SEPs are non-statutory instruments which are approved by Cabinet for adoption by whole of government, to protect environmental values and ensure values are considered in decision making for ongoing and new uses.	WA's Minister for the Environment
Expanding boundaries of existing Class A National Park or Conservation Park	CALM Act	Provides for the use, protection and management of certain public lands and the flora and fauna within those lands.	WA's Minister for the Environment **Note: Ministers responsible for Fisheries and Mining must give concurrence in relevant decision-making

Title	Instruments	Summary	Key decision-makers/ authority
Protection of threatened species and threatened ecological communities (TECs) WA	BC Act	Conserves and protects biodiversity and promotes the ecologically sustainable use of biodiversity components, particularly threatened species and threatened ecological communities.	WA's Minister for the Environment
Protection of exploited aquatic resources and ecosystems	Pearling Act 1990, FRM Act	Regulates catch, effort and operations more broadly to ensure sustainability against the principles of Ecosystem Based Fisheries Management	WA's Minister for Fisheries
Legislation that regulates the management, use, and protection of water resources.	Rights in Water and Irrigation Act 1914	Provides for the regulation, management use and protection of water resources	WA's Minister for Water

Table 10 World Heritage listing selection criteria

Sites must be of outstanding universal value and meet at least one out of 10 selection criteria identified below to be included on the World Heritage List.

Criteria number	Selection criteria
(i)	to represent a masterpiece of human creative genius
(ii)	to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design
(iii)	to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
(iv)	to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history
(v)	to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change
(vi)	to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria)
(vii)	to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
(viii)	to be outstanding examples representing major stages of Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
(ix)	to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
(x)	to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

Source: UNESCO World Heritage Centre - The Operational Guidelines for the Implementation of the World Heritage Convention

Appendix 7: Cape Range Subterranean Waterways map

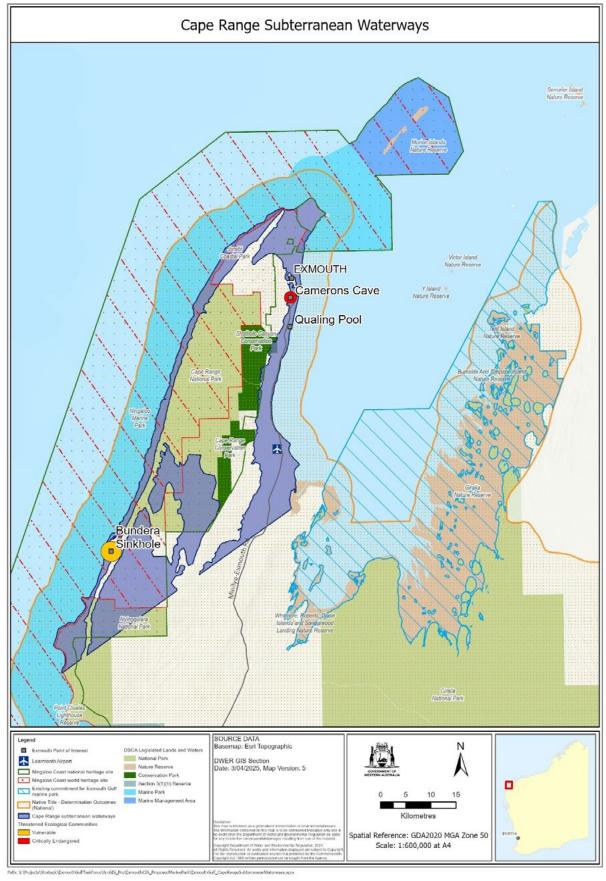


Figure 3 Cape Range Subterranean Waterways

Appendix 8: State of Exmouth Gulf: reporting analysis and framework

WAMSI – State of Exmouth Gulf Reporting Analysis and Framework 2025 Executive summary extract

Exmouth Gulf and the surrounding area is an ecologically, culturally, and socio-economically significant marine region in WA, supporting diverse habitats, marine species, and industries such as fisheries, tourism, and recreation. However, increasing pressures from industrial development, shipping, and climate change pose significant challenges to the region's sustainability. In response, the Department of Water and Environmental Regulation in conjunction with the Exmouth Gulf Taskforce has identified the opportunity for an integrated reporting framework to support long-term management and protection. This report provides an analysis of existing environmental reporting frameworks and recommends a tailored reporting framework for Exmouth Gulf.

The report examines key case studies, including the Great Barrier Reef Outlook Report, Australia's National State of the Environment Report, Cockburn Sound environmental reporting, and World Heritage Area reporting. A 'State of Exmouth Gulf' reporting framework is proposed, based on international best practices and key lessons identified from the case study analyses, alongside a high-level roadmap to guide the implementation of the framework.

Drawing on the established Integrated Ecosystem Analysis approach provides an internationally recognised and robust process for conducting assessments, working to ensure that the outputs are regarded as credible, relevant, and legitimate. The fundamentally participatory principle of this approach entails deep and continual engagement with stakeholders throughout the process, offering a pathway to enhance stakeholder relationships and facilitate knowledge exchange. In the Exmouth Gulf and its surrounds, an assessment should be conducted in partnership with the Traditional Owners, including the NTGAC to recognise Traditional Owners' unique rights, responsibilities, and cultural knowledge.

The driver, pressure, state, impact and response (DPSIR) model is recommended as the preferred conceptual framework to systematically assess ecosystem health, social and economic values, and management responses. The DPSIR model provides a structure within which to identify and present the required indicators. Applying this model ensures consistency with international best practices and aligns with existing national environmental reporting. The flexibility of the DPSIR allows for integrating western scientific evidence alongside Traditional Knowledge and Science as well as local knowledge to inform the assessment.

Implementing long-term, integrated socio-ecological monitoring programs is essential for effective ecosystem assessment, enabling structured, ongoing data collection to track trends over time. The proposed reporting process can both benefit from and contribute to existing shared data initiatives, including the Shared Environmental Analytics Facility, a secure data-sharing and analytics platform that is in the pilot stage of development in the region.

The implementation plan outlines nine key steps to establish a SOEG process. Steps one to five have been initiated through the WAMSI previous work in the region and the connections between these resources and the implementation plan have been identified. The importance of establishing transparent communications is highlighted in the recommendations and implementation plan, to ensure the findings are accessible to policymakers, Traditional Owners resource managers, and the public.

Adopting a structured reporting process will provide Exmouth Gulf decision-makers with high-quality, transparent, and policy-relevant information to guide conservation, protection and management efforts. Importantly, the proposed framework does not replace the need for sector-based regulation and monitoring in the region. Instead, it offers a strategic approach to enhance the capacity of knowledge gathered systematically from diverse sources to inform future decision-making.

The framework supports the long-term resilience of the Gulf's environment, economy, social and cultural values while fostering collaboration among the community, stakeholders and Traditional Owners. Periodic reassessments every three to five years will

enable tracking of trends, adaptive responses to emerging pressures, and informed decision-making that balances protection and sustainable development.

Proposed roadmap for the 'State of Exmouth Gulf' reporting framework

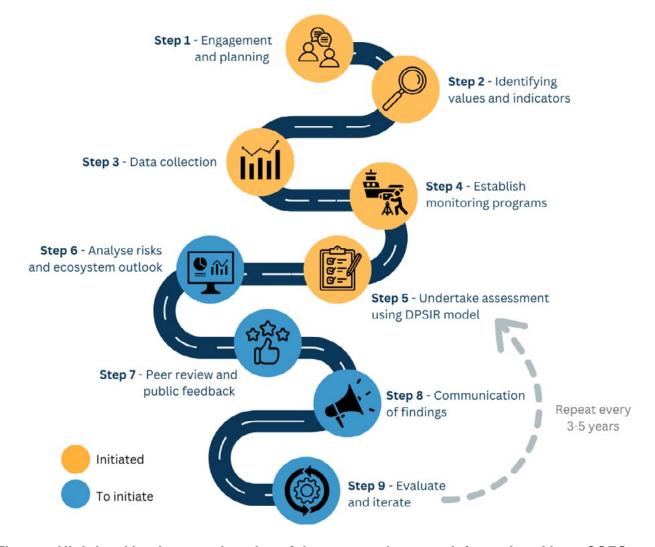


Figure 4 High-level implementation plan of the proposed approach for undertaking a SOEG process. Steps 1 – 5 have been initiated (orange) and include elements that have been delivered through WAMSI's existing research (WAMSI 2021); ⁴² however, further work remains to be completed

⁴² WAMSI (2021). Cumulative Pressures on the Distinctive Values of Exmouth Gulf. Final report to the Department of Water and Environmental Regulation by the Western Australian Marine Science Institution, Perth, Western Australia (272 pp.)

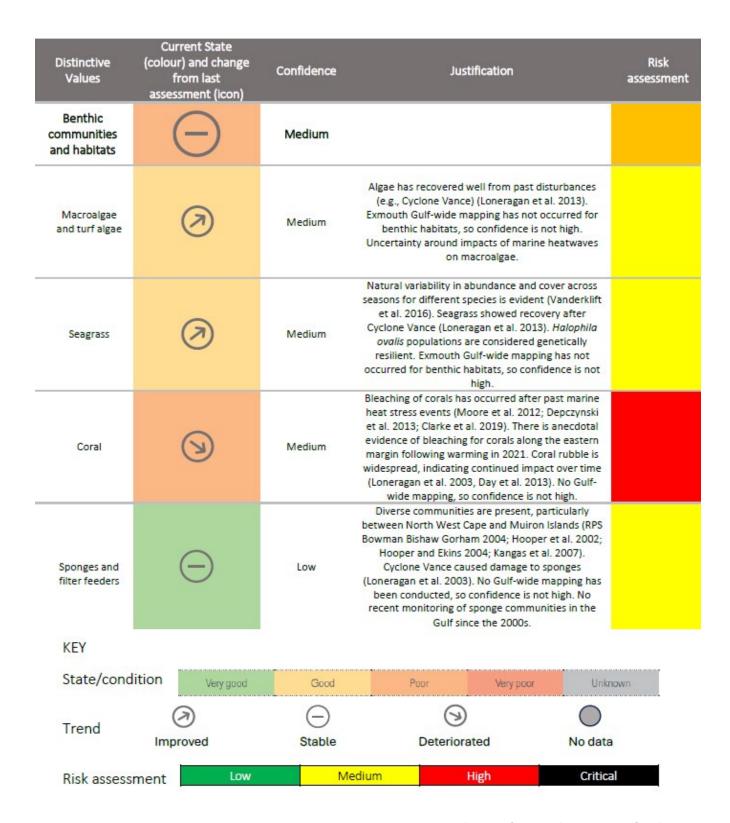


Figure 5 An indicative assessment sample to illustrate how a future State of Exmouth Gulf assessment may look. Distinctive values, current state, confidence and justification taken from WAMSI (2021). ⁴³ Trend icons and risk assessments include simulated data

Appendix 9: Key findings – Knowledge Review of Exmouth Gulf and prioritisation of future research report

WAMSI undertook an online survey to prioritise knowledge gaps for Exmouth Gulf and surrounds. Survey participants stakeholder categories included community members, research/university, government, fishing, tourism, management, Traditional Owner, local business or visitors. A total of 341 participants completed the survey. Comprehensive background and methodology are addressed in the Knowledge Review Report.

Survey participants ranked the nine research themes in order of priority. These are provided in Table 11:

Table 11 Nine survey themes ranked in order of priority

Rank	Theme
1	Industrial development impacts on coastal and marine environments and recreational activities (e.g., footprints, noise, clearing)
2	Climate change projections for marine and coastal environments (e.g. sea level rise, marine heatwaves, storms and cyclones)
3	Understanding and maintaining ecosystem health, connectivity, and processes (e.g., nutrient and groundwater flows, spawning and recruitment, land and sea connections, food webs, water and sediment quality)
4	Use of marine and coastal habitats by threatened and protected species (e.g., seagrasses, sponges, corals, mangroves, samphire, feeding areas, nursery areas)
5	Fisheries and fishing effects on important species (e.g., recreational, commercial, charter, bycatch)
6	Effects of increased boating and shipping (e.g., increased sediments in water column, marine pests, fuel and oil spills, vessel strikes)
7	Current and future underwater noise effects on marine life (e.g., seismic activity, vessel noise, construction)
8	Pollution and contamination of the marine environment (e.g., PFAS, bitterns, vessel antifouling, light, marine debris)
9	Disturbance and degradation to marine and coastal values from unmanaged tourism and population growth (e.g., offroad 4WD, anchoring, diving, carrying capacity)

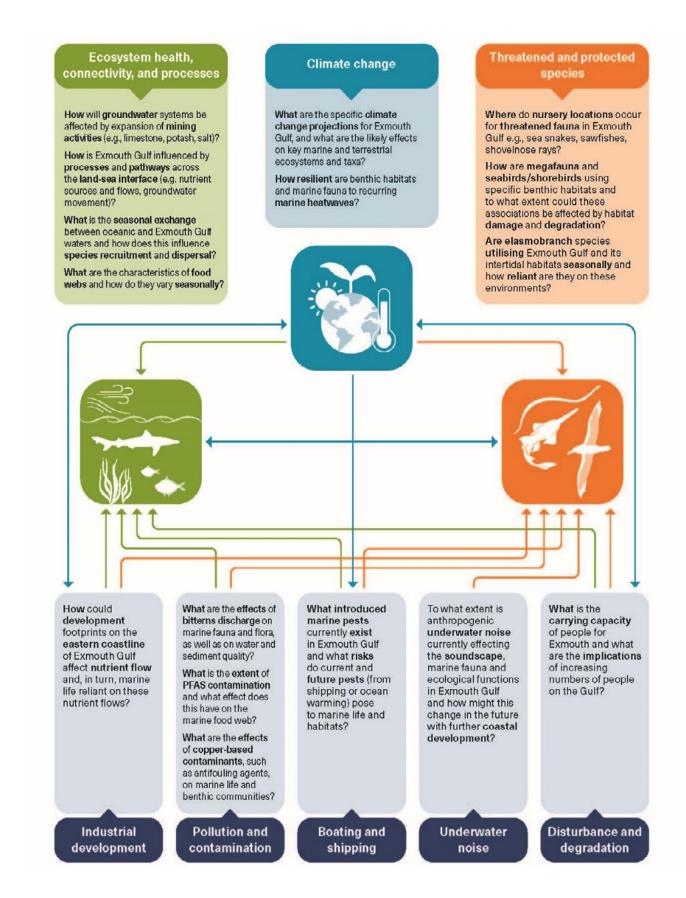


Figure 6 Top 15 knowledge gaps as determined by stakeholders in the WAMSI Exmouth Gulf research prioritisation survey, demonstrating linkages between gaps and high-level research themes

The highest priority detailed knowledge gaps identified in the survey are outlined in Table 12.

Table 12 Highest priority detailed knowledge gaps identified in the survey, aligned with their respective research theme. Rank and sample size provided for each knowledge gap

High-level theme		Detailed knowledge gap	Rank	Sample size
1.	Industrial development impacts on coastal and marine environments and recreational activities	How could development footprints on the eastern coastline of Exmouth Gulf affect nutrient flows and, in turn, marine life reliant on these nutrient flows?	1	119
2.	Understanding and maintaining ecosystem health, connectivity, and processes	How will groundwater systems be affected by expansion of mining activities (e.g., limestone, potash, salt)?	2	123
3.	Understanding and maintaining ecosystem health, connectivity, and processes	How is Exmouth Gulf influenced by processes and pathways across the land-sea interface (e.g. nutrient sources and flows, groundwater movement)?	3	123
4.	Use of marine and coastal habitats by threatened and protected species	Where do nursery locations occur for threatened fauna in Exmouth Gulf e.g., sea snakes, sawfishes, shovelnose rays?	4	119
5.	Disturbance and degradation to marine and coastal values from unmanaged tourism and population	What is the carrying capacity of people for Exmouth and what are the implications of increasing numbers of people on the Gulf?	5	66
6.	Use of marine and coastal habitats by threatened and protected species	How are megafauna and seabirds/shorebirds using specific benthic habitats and to what extent could these associations be affected by habitat damage and degradation?	5	119
7.	Pollution and contamination of the marine environment	What are the effects of bitterns discharge on marine fauna and flora, as well as on water and sediment quality?	6	86
8.	Climate change projections for marine and coastal environments	How resilient are benthic habitats and marine fauna to recurring marine heatwaves?	7	119
9.	Effects of increased boating and shipping	What introduced marine pests currently exist in Exmouth Gulf and what risks do current and future pests (from shipping or ocean warming) pose to marine life and habitats?	8	93
10.	Pollution and contamination of the marine environment	What is the extent of PFAS contamination and what effect does this have on the marine food web?	8	87
11.	Use of marine and coastal habitats by threatened and protected species	Are elasmobranch species utilising Exmouth Gulf and its intertidal habitats seasonally and how reliant are they on these environments?	8	114

High-level theme	Detailed knowledge gap	Rank	Sample size
12. Understanding and maintaining ecosystem health, connectivity, and processes	What is the seasonal exchange between the oceanic and Exmouth Gulf waters and how does this influence species recruitment and dispersal?	9	120
13. Understanding and maintaining ecosystem health, connectivity, and processes	What are the characteristics of food webs in Exmouth Gulf and how do they vary seasonally?	10	123
14. Pollution and contamination of the marine environment	What are the effects of copper-based contaminants, such as antifouling agents, on marine life and benthic communities?	11	86
15. Climate change projections for marine and coastal environments	What are the specific climate change projections for Exmouth Gulf, and what are the likely effects on key marine and terrestrial ecosystems and taxa?	12	123

The Knowledge Review Report recommended a suite of research projects to address the top 15 knowledge gaps, as determined by stakeholders. WAMSI identified future investment project scopes including:

- Groundwater mapping, monitoring and modelling
- Scenario modelling of carrying capacity (people) for Exmouth Gulf
- Biogeochemical modelling
- Multi-species habitat modelling
- Seasonal food web modelling
- Forecasting future effects of bitterns discharge in Exmouth Gulf
- Assessing future likelihood scenarios of marine pest establishment (climate change and vessels)
- Elasmobranch populations and habitat use
- Species distribution and ecological niche modelling to predict climate change impacts
- Larval dispersal and connectivity modelling
- Effects of contaminants on marine food webs
- Seasonal sea surface temperature forecasts and marine heatwave predictions for Exmouth Gulf
- Comprehensive soundscape mapping and modelling future changes based on anthropogenic sources
- Comprehensive subtidal and intertidal benthic habitat mapping

Appendix 10: Taskforce Interim Report – updated position statements

Taskforce member updated position statements relating to the Taskforce Interim Report recommendations. Recfishwest and Shire of Ashburton did not endorse all the recommendations in the Interim Report. The Shire of Exmouth abstained from endorsing due to caretaker mode conventions.

Organisation	Comment
Recfishwest	Recreational fishing is a highly valued activity within Exmouth Gulf and its surroundings and is supported by the highly productive ecosystems within Exmouth Gulf. Recfishwest supports the efforts of the taskforce in making recommendations to the Government around better understanding and protecting the environmental and social values of the gulf.
	Our goal is to ensure high-quality fishing experiences driven by high fish abundance, and we understand that it is unlikely that the current fisheries management arrangements will remain in place or unchanged to deliver this outcome in the longer term. Moreover, our expectation is that the current values derived from recreational fishing are not impacted and that any future management changes are implemented in a manner that does not erode these social values. If implemented with this intent, it is quite possible that future changes to the way fishing is managed within this area can enhance the social values that recreational fishing provides.
	As an example, the eastern side of Exmouth Gulf is distinguished amongst fishers as an area that provides world-class wilderness fishing and camping experiences. Values such as connection with nature, time spent with friends and family, and improved health and wellbeing benefits are all supported by a high abundance of popular species, which are either targeted for catch-and-release or kept in very low quantities to be consumed as part of the camping experience. Changes to fishing regulations that come about through a revised management regime can easily support and enhance these experiences without unnecessarily restricting fisher accessibility (e.g. through appropriate fishing rules and spatial zoning).
	Of the recommendations provided to the Minister for Environment as part of the Interim Report, Recfishwest is particularly interested in those related to a whole of gulf marine park. While Recfishwest did not endorse this recommendation, we did provide context and suggested amendments to wording within the interim recommendations document that will better capture the views of our sector regardless of any boundaries of the proposed marine park.
	With this in mind, we suggested that updates be made to the recommendations within the Interim Report to support recreational fishing values consistent with the taskforce role. Specifically, we have suggested that any new management regime or investment of government funding to protect the existing environmental and social values of Exmouth Gulf "actively support ongoing sustainable recreational and tourism use, including recreational fishing across the Gulf" and that the implementation of any new marine park "recognises, supports and optimises the community, tourism and fishing industries that value and use the area".

Organisation	Comment
Shire of Ashburton	A significant area of the proposed Exmouth Gulf marine and terrestrial area is within the Shire of Ashburton.
	Representatives of the Shire of Ashburton maintain their position as per the 2023 Interim Report to the Minister in that the Representatives, in good conscience, cannot support an Exmouth Gulf Marine Park nor a 'whole of gulf' Marine Park, until any potential impacts to projects that support the growth of Onslow, the greater Shire of Ashburton and it's community, are quantified.
	The Shire of Ashburton request a comprehensive and consultative Economic Impact Assessment (EIA) to be completed as part of the Taskforce's due diligence responsibilities and strategic obligations, or as a recommendation in the Final Report as a necessary requirement to be undertaken to ensure provision of comprehensive research and information seen critical as to inform the decision-making process of the proposed Exmouth Gulf Marine Park and in particular a 'whole of gulf' approach.
	The EIA's aim should be to provide clarity and address a critical knowledge gap which would identify any impacts and/or opportunities regarding social and economic growth and the future sustainability of both Onslow and Exmouth in consideration of the desired implementation of an Exmouth Gulf Marine Park and/or a whole of gulf marine park. The EIA should consider impacts on current and future economies, the community as whole, tourism industry, business, pastoral and resource industries and the Native Title and knowledge holders of our region.
	The Shire of Ashburton then requests that the EIA, along with the proposed Marine Park then be presented to the Shire of Ashburton Council and Onslow community for consideration and comment to provide inclusive insight and comment, and as previously requested, a necessary undertaking by the Taskforce for engagement with the Buurabalayji Thalanyji Aboriginal Corporation and other Traditional Owners, engagement with the resource and pastoral sectors who would all be impacted in a 'whole of gulf' approach.
Shire of Exmouth	The Shire of Exmouth confirms that its position on the Final Taskforce Report represents its position on the Taskforce Interim Report.



 $\label{thm:local_equation} \mbox{Hawksbill turtle hatchling on low tide sandflats. Image: Renee\ Morgan}$

Exmouth Gulf Taskforce

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