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## Submission to Living Marine Resources Management Act Review 2022



Image from John Smith

Tasmanians for Marine Parks (TMP) is a community based not-for-profit organisation advocating for increased government action to protect and restore our shared marine environment. We are advocating for a network of representative no-take marine parks in each bioregion in Tasmania supported by Management Plans and Marine Parks legislation. We are also advocating for marine ecosystem health more broadly, to protect ecosystem function/resilience, biodiversity, habitat and high conservation value areas. We acknowledge the connection and concern that many sectors of society have for the declining state of Tasmania's marine health which include the Aboriginal community, recreational fishers, commercial fishers and non-extractive users. We welcome this opportunity to contribute ideas for updating of Tasmania's *Living Marine Resources Management Act 1995*.

## 1. P7 Questions.

Question 1. How well do you think the Tasmanian legislative regime has supported the protection and management of Tasmania's marine resources over the past 26 years?

### 1.1 Ongoing Decline of Fish Stocks

Tasmanians for Marine Parks acknowledge that there has been historical overfishing prior to the influence of the current Act (Frijlink & Lyle 2013) however, in the last 26 years many of our fisheries have declined further (Edgar et. al. 2018) and many are now classified as 'depleted' or 'depleting' (Discussion Paper p8) and even those that are classified 'sustainable' can be at or below 20% original biomass. This is a clear indication that the current LMRM Act is *not* supporting the protection and management of Tasmania's marine resources and that this review needs to result in significant improvements to the Act.

### 1.2 Delivery of Objectives of the Act

The Act has sound objectives as outlined on p12 of the Discussion Paper where it is stated that 'Sustainable development is the cornerstone of the Act', but Tasmanians for Marine Parks would suggest that the administration of the Act has in the past failed to further these objectives in practise.

TMP suggest that the revised Act needs to outline clearly how science/community/department advice can trigger new management plans or reviews of management plans to ensure timely actions to achieve the Objectives of the Act.

In doing this the administration of the Act needs to remember that 'The Minister *must* ensure that this Act is administered in a way which promotes the sustainable management of living marine resources' (Part 1, Division 2, 19.) and therefore it needs to outline more clearly the process by which the management of marine ecosystems, habitats and populations can be responsive and adaptive to current challenges.

The current Tasmanian Act states that 'The Minister *may* determine that a management plan is to be prepared relating to a fishery within State waters' (Section 43. Decisions to prepare management plan). It is the view of TMP that this wording is not decisive enough to respond to critical information on ecosystem/species health and that this may

result in decisions being made that are influenced by industry capture and/or political manoeuvring. In a PhD thesis by Garcia 2017 it was found that of particular concern in marine protected area governance in Tasmania was ‘the tendency of political interventions to privilege narrow sectoral interests and override outcomes from statutory consultation processes that were informed by wide stakeholder input’. It has been suggested that ‘the legal framework should be amended to give the responsibility of a final decision to Parliament or at least to a body representing relevant sectors, rather than an individual [the Minister] with a direct interest in electoral results’ (Garcia 2017). The wording regarding the Ministers actions regarding fisheries generally needs to be strengthened and/or responsibility be given to a body representing all relevant sectors.

One suggestion that TMP would make in this respect is to clearly link the science (both fisheries and ecologists) to management by having clear indicators that trigger action. For example, if populations become close to recruitment impaired (<20% original biomass) then this automatically triggers a plan/review, and the Minister *must* follow to further the Act’s Objectives.

Another trigger should be the listing of threatened species/communities under the *Threatened Species Protection Act 1995*, the *Nature Conservation Act 2002* and the federal *Environmental Protection and Biodiversity Conservation Act 1999*. If this were the case, then Marine Protected Areas (MPAs) could be declared for the listed threatened *Macrocystis* community and Handfish species. The NSW *Fisheries Management Act 1994* embeds threatened species protection and their habitats in Division 2 and 3 (Figure 1.), the process for listing threatened species by Fisheries Scientific Committee, Recovery Plans and Threat Abatement Plans. TMP suggests that we strengthen links to other Acts under the Resource Management and Planning System of Tasmania.

**New South Wales *Fisheries Management Act 1994***  
**Part 7A Threatened Species Conservation**  
**Division 1 Preliminary**  
**220A Objects of Part**  
The objects of this Part are as follows—  
(a) to conserve biological diversity of fish and marine vegetation and promote ecologically sustainable development and activities,  
(b) to prevent the extinction and promote the recovery of threatened species, populations and ecological communities of fish and marine vegetation,  
(c) to protect the critical habitat of those threatened species, populations and ecological communities that are endangered,  
(d) to eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities of fish and marine vegetation,  
(e) to ensure that the impact of any action affecting threatened species, populations and ecological communities of fish and marine vegetation is properly assessed,

*Figure 1. Threatened Species Objectives embedded in the NSW Fisheries Management Act 1994*

Underpinning the Administration of the Act is reliance on sound advice and this needs to be clarified in the Act. Tasmanians for Marine Parks suggest that the role of scientific advice be embedded in the Act and that it be recognised that within the discipline of science there are different points of view, for example there is important advice from both fisheries scientists and marine ecologist, the latter having been underrepresented in the past.

Additional improvements would be including an Aboriginal representative, a youth representative, environmental NGOs and other community representatives (fishing bodies, tourism, non-extractive users) at the decision-making table. This highlights the need to better define 'community' in the Act.

There is a definite need to undertake regular State of the Environment Reporting to provide a current picture of the threats and health of our marine environment and to therefore advise decision making.

Tasmanians for Marine Parks are strongly advocating for the lifting of the current moratorium on MPAs to enable the establishment of scientific reference areas in each bioregion to provide valuable baseline information to the community and decision makers (among other benefits). It is clear the Act is not working as it should considering that there are provisions for the establishment of marine resources protected areas and for habitat protection plans and yet no areas or plans established.

#### 1.4 Communication/Education

Another improvement in the administration of the Act is concerning sound advice/education/capacity building to communicate the status of our fish stocks more accurately. The term 'sustainable' is unclear when it can mean that a stock at less than 20% of its original biomass as is the case with areas of the SRL fishery. The term 'sustainable' has the potential to misinform the community about the health of our fish stocks.

#### 1.5 Precautionary Principle and Climate Change

The Act also needs to be updated to include the Precautionary Principle to acknowledge the threats of climate change and uncertainty/error in fisheries stock assessment modelling (as outlined in Edgar et al. 2018 and Edgar et al 2019). Currently this concept is not included in the Act ("precautionary" word count =0). The principle is a 'duty of care' that recognizes that uncertainty over the effects of management actions should not be used as an excuse to preclude cost-effective measures to prevent environmental degradation (Garcia 1994).

It is suggested that Tasmania's legislation might include something similar to WA's *Fisheries Resources Management Act 1994* that states that '4A. Precautionary principle - lack of full scientific certainty must not be used as a reason for postponing cost-effective measures to ensure the sustainability of fish stocks or the aquatic environment'(p3). The Precautionary Principle is also embedded in the Victorian *Marine and Coastal Act 2018*. The definition of the Precautionary Principle in the

Discussion Paper is also relevant and should be included in the Act and referred to in Management Plans, Fisheries Rules and the proposed Harvest Strategies.

In practise the Act needs to outline how to give effect to the Precautionary Principle. TMP supports the:

- Establishment of Harvest Strategies (monitoring indicators for trigger points) and
- the use of Section 59 Emergency Orders (with extension of the time frame from 3 months to 18 months to ensure enough time to amend management plans/rules).

**Current Example Needing Guidance by the Precautionary Principle - Calamari Fishing on the North Coast**

There is widespread concern regarding the massive increase in fishing effort observed in the 2021 north coast calamari fishery from both recreational and commercial sectors. In addition, there were reports of up to 40% of females being caught after the spawning season closure that had still not deposited their eggs (pers comm 2022). There is deep concern that the decision-making process will be not fast enough to prevent a repeat of this situation in the 2022 season and that the stocks may be critically impacted. In this case the Precautionary Principle needs to be enacted to substantially extend the season closure (by Emergency Order) to provide time to update commercial licensing arrangements and/or to reduce catch limits thereby ensuring that management is in line with current stock concerns.

## 2. What do you think will be the major challenges for the sustainable management and development of Tasmania's living marine resources in the next 20 years?

2.1 Tasmanians for Marine Parks suggest that the major challenges will be:

- Climate change
- Linking the LMRM Act to other Acts with the same Objectives under the RMPS of Tasmania such as the *Nature Conservation Act 2002*, the *Threatened Species Protection Act 1995* (NSW *Fisheries Management Act 1994* has threatened species embedded in the Act) and the *National Parks and Reserves Management Act 2002*. These needs functional frameworks for collaboration and consultation with the appropriate Scientific Advisory Committees (*TSP Act*), the Special Advisory Committee (*NCA 2002*) and the National Parks and Wildlife Advisory Council (*NPRM Act 2002*)
- Lifting the current MPA moratorium.
- Establishing a network of Marine Protected Areas supported by a Marine Parks Act that may have Objectives similar to those outlined in the South Australian Marine Parks Act 2007 (see Appendix A) and the NSW Marine Parks Act 1997
- Rewording the LMRM Act to stipulate that the Minister *must* take the advice of the Secretary and that the Secretary *must* take the advice of the Advisory Committees/Councils. The biology of the stocks to be communicated through the science and trigger instruments in the Act.
- Rebuilding fish stocks and setting stock recovery targets

- Addressing information gaps
- Incorporating uncertainties (the need for the Precautionary Principle)
- Improving fish stock assessment modelling
- Resourcing effective community engagement/education
- Resourcing compensation/retraining to those in the fishing industry while stocks are rebuilt
- Resourcing enforcement
- Establishing a practical framework for ecosystem-based management which might include:
  - Marine spatial planning
  - Habitat mapping
  - State of the environment reports
  - Cost/benefit analysis
  - Environmental impact statements (similar to Section 1AA Environmental Assessment of Designated Fishing Activities in the NSW *Fisheries Management Act 1994*)
  - Cumulative impact statements
  - Accounting for ecosystem services through frameworks such as The Economics of Ecosystems and Biodiversity, Accounting for Nature and Carbon Accounting
  - Working with natural processes
  - Adaptive management
  - Value/threat analysis such as the international framework used in the Open Standards of Conservation (<https://conservationstandards.org/>). This framework starts with what we value (with targets), the threats to these values, the drivers of those threats (key threatening processes) and strategies to address these. It results in an analysis that looks like Figure 2.

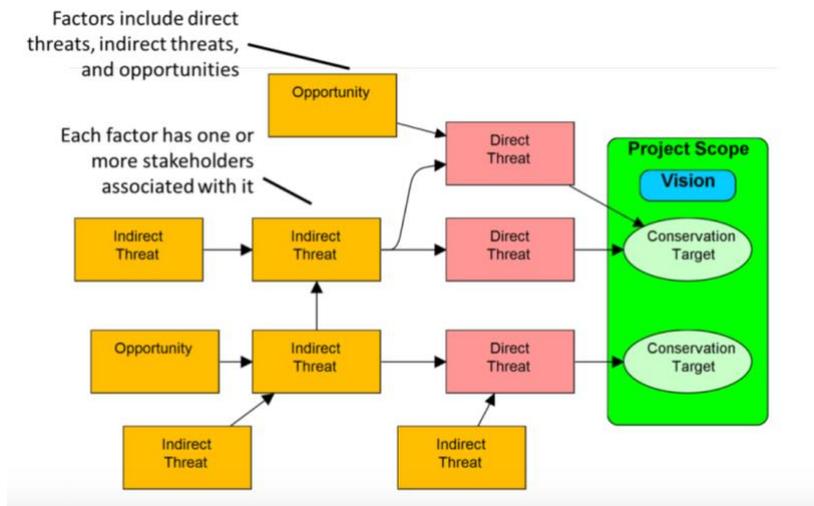


Figure 2. Generic conceptual model showing project context from CMP 2013

Note that in the NWS *Fisheries Management Act 1994* Schedule 6 is specific to Key Threatening Processes and it is suggested that Tasmania's fisheries legislation have a similar regard to assessing threats.

### 3. How do you think the legislative regime will, or should, respond to those challenges?

3.1 To respond to the above challenges there needs to be:

1. Establishment of a network of no-take/scientific reference area/insurance marine reserves in each bioregion in Tasmania supported by a Marine Parks Act.
2. Rewording of the Act to be more definite (the Minister *must*....) in its action to respond to the threats to marine stocks, biodiversity and habitat by measuring indicators (e.g. biomass) and establishing triggers (e.g. <20% biomass).
3. Rewording of the Act to include the Precautionary Principle and climate change
4. Outlining a practical framework for ecosystem-based management principles including decision support from marine spatial planning (Figure 3.) and see 2.1 point13 above.

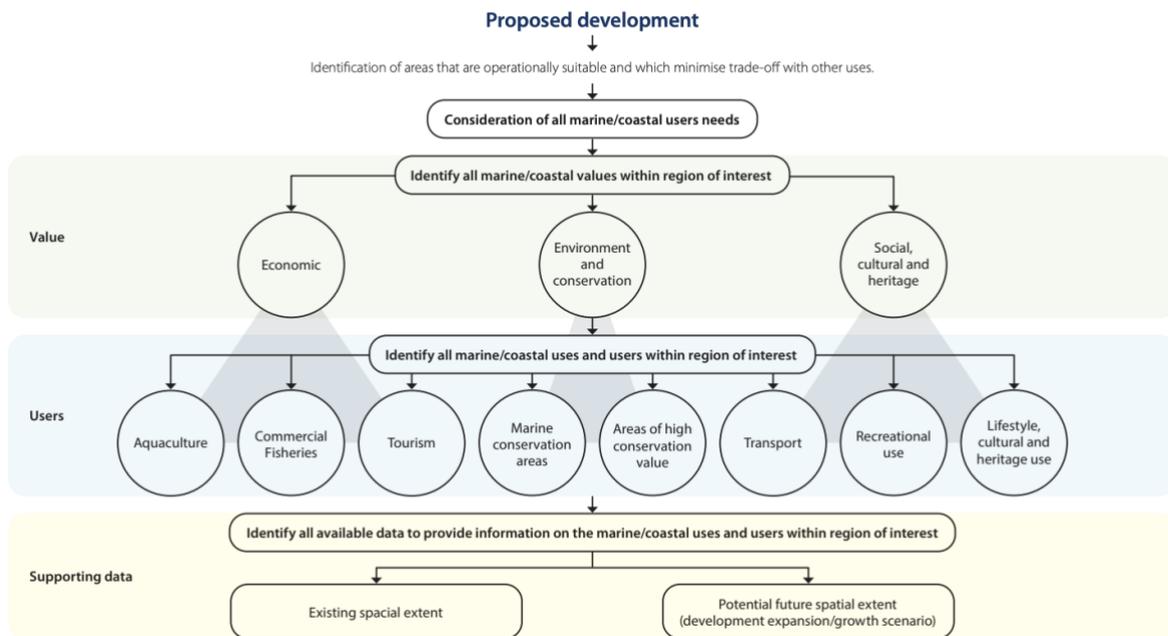


Figure 3. Structural model to illustrate the relationships between values, users, and information sources when developing a decision support tool (Ross et. al. 2020)

5. Specifically address the role of scientific advice (ecology and fisheries stock assessment)
6. Rewording of the Act to allow the setting of specific rebuilding targets and link baseline targets to action to prevent recruitment impairment.
7. Establishment of Harvest Strategies (indicators, targets, refer to Objectives of the Act)
8. The Act needs to link to other Acts under the RMPS in a functional manner.
9. The Marine Resources of NRE needs additional resourcing for strategy and compliance.
10. Continued connection to IMAS and scientific research in marine ecology, fisheries management, state of the environment reporting, marine spatial planning and habitat mapping.
11. Investigate the possibility of offsets. For example, in Queensland's *Fisheries Act 1994 Section 76IA* Environmental offset conditions states that:

(1) Under the Planning Act, section 65, the conditions imposed on a fisheries development approval may include environmental offset conditions.

(2) An environmental offset condition may relate to an environmental offset undertaken to counterbalance the impacts of the development on fisheries resources or fish habitat including, for example-

(a) an environmental offset to enhance or rehabilitate a fish habitat; and

- (b) the exchange of another fish habitat for a fish habitat affected by the development; and
- (c) a contribution to fish habitat research.

12. Increase education and reporting.

## Theme One – Objectives and Scope

### 4. P13 Questions

Question 1. Are the current objectives of the Act, including that of achieving sustainable development still relevant for the Act? What other objectives for the management of our living marine resources could be relevant?

4.1 Tasmanians for Marine Parks considers the Objectives of the Act to be reasonable, but they need to be expanded to include

- the Precautionary Principle
- consideration of climate change
- adaptive management
- ecosystem-based management
- threat assessment
- ecosystem restoration
- scientific advice
- community definition ensuring non-extractive users are stakeholders

The Objectives need to be ‘front and centre’ of decisions made around the extractive use and non-extractive use of our shared marine resources. The Objectives are not specifically referred to in the fisheries Management Plans/Rules and it is suggested this be the case.

5. Question 2. The purposes refer to the community and the community’s interests. What do you think community means and what are their interests?

5.1 The ‘community’ needs to include all interested groups i.e. fishers, aquaculture, non-extractive users, Aboriginal Tasmanians and conservationists. The marine environment is a ‘public commons’ and its management needs to reflect the community in broad terms.

The Act is limited in who can formally raise issues or propose codes of practise. For example, the ‘restoration or rehabilitation of fish habitat’ is stated as a matter that can be included in a Draft Code of Practise, but these codes of practise can only be prepared by a fishing body (fishing industry, marine farming industry) or an advisory committee established under the Act. This is restricting the wider community that may have an interest in contributing ideas/expertise in developing codes of practise for habitat restoration/management/stewardship of marine protected areas. Note that this is the only time restoration is mentioned in the Act.

The community also needs to include other government departments that are administering other related acts under the Resource Management and Planning System of Tasmania.

## 6. P15 Question

Question 1. What are your views on the scope of the Act? Are any key activities relating to the protection, development and management of our marine resources missing that should be added, or should anything be removed?

6.1 The past administration of the Act has been too narrow in its focus on specific species management and has not assessed fisheries decisions on the broader ecosystem. The Act has also not taken advantage of the provisions in the Act (Part 5 Marine Resources Protected Areas and Habitat Protection Plans) that would further the

- Objectives of the Act especially Objective (a) of the Resource Management and Planning System (RMPS) in Tasmania which aims to 'promote the Sustainable Development of natural and physical resources and the maintenance of *ecological processes and genetic diversity*', and
- In the definition of Sustainable Development – 'safeguarding the life-supporting capacity of air, water, soil and *ecosystems*'.

For example, there is an ongoing threat of urchin barrens on the East Coast of Tasmania causing habitat decline and loss of economic potential, but the Southern Rock Lobster (SLR) management plan is failing to consider that fisheries decisions re SRL are having an ecosystem wide effect. Ling et al. (2009) found that 'by conducting experiments inside and outside of Marine Protected Areas it was shown that fishing, by removing large predatory lobsters, has reduced the resilience of kelp beds against the climate-driven threat of the sea urchin and thus increased the risk of catastrophic shift to widespread sea urchin barrens'. Changes to SRL Rules therefore need a process similar to an environmental impact statement.

Tasmanians for Marine Parks (TMP) are strongly advocating for the lifting of the current governments' moratorium on marine parks to allow a review of the many benefits of creating a Tasmanian marine park estate.

TMP would like to see Tasmania have a network of Marine Parks which would help fulfil the Objectives of this Act by

- Safeguarding marine biodiversity
- Safeguarding representative marine habitat in each bioregion in Tasmania
- Providing scientific reference areas for further research
- Provide habitat for insurance populations to recruit surrounding areas
- Provide areas that have maximum ecosystem function and resilience to climate change. The Victorian Marine and Coastal Act 2018 specifically addresses this by including an Objective of the Act for 'promoting the resilience of marine and coastal ecosystems, communities and assets to climate change' (p12).
- Accessible areas for education and tourism possibly linking with land based National Parks for ease of management e.g. Trousers Point, Ramsar listed Moulting Lagoon.
- A tool for ecosystem restoration

Figure 4. and 5. are a reminder of the limited extent of no-take/scientific reference areas at present in Tasmanian waters.

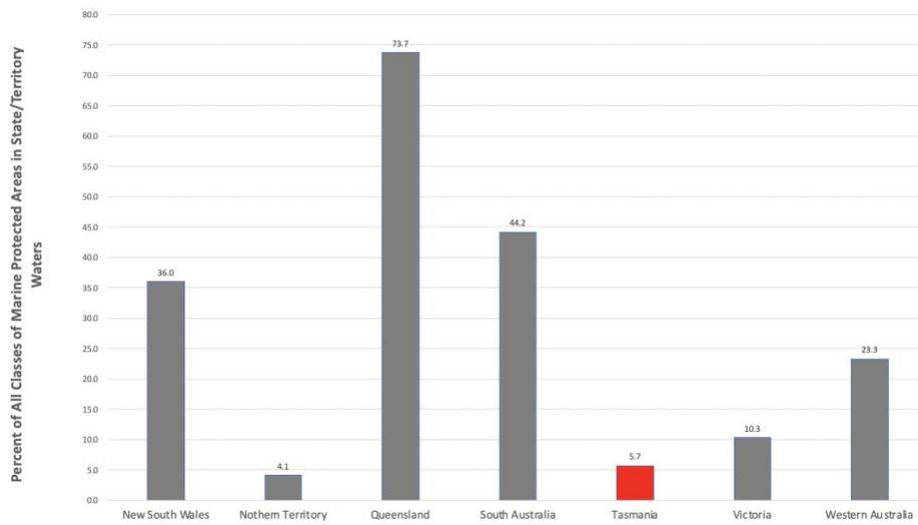


Figure 4. Percent of all classes of marine protected areas in Australian State/Territory waters. Data from Chapter 17 Beaver (2016) Halfway there? Gaps and priorities in the development of Australia's marine protected area network in Big Bold and Blue Lessons from Australia's Marine Protected Areas. Fitzsimons and Wescott 2016.

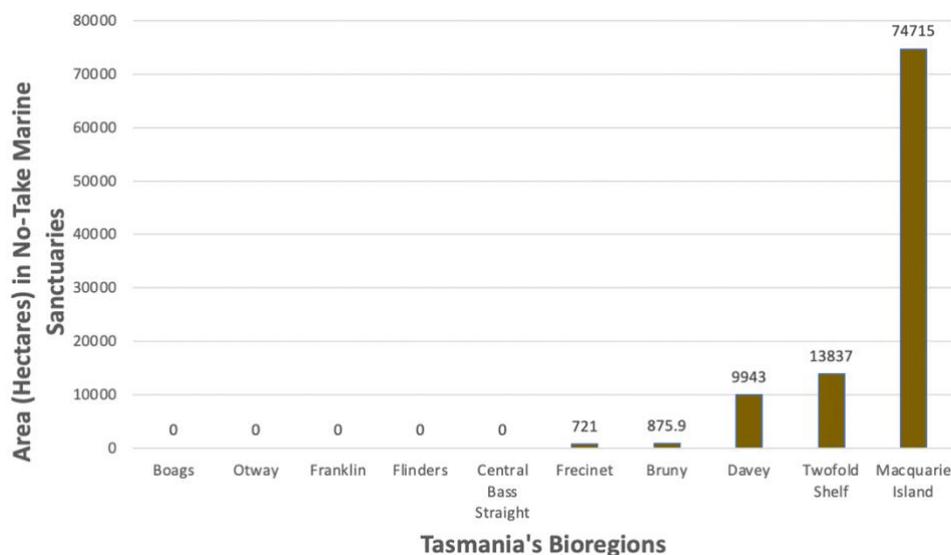


Figure 5. Area (hectares) in no-take marine sanctuaries in Tasmanian waters per bioregion. Data from Chapter 10 Kriwoken (2016) Marine protected areas in Tasmania: moving beyond the policy void in Big Bold and Blue Lessons from Australia's marine Protected Areas. Fitzsimons and Wescott 2016

Note that 5 bioregions have no reference area at all making fisheries independent data baselines difficult to establish and the effects of climate change difficult to determine. In

effect we have no ‘control’ reference point in our assessments in five bioregions in Tasmania. In total Tasmanian has only 1.1% of waters in no-take sanctuary zones (excluding Macquarie Is).

### **Tasmania Needs to Accelerate its’ Participation in Ocean Protection in Line with the National Liberal Government’s Commitments.**

Tasmania is well behind the targets of the National Reserve System of Marine Protected Areas, the IUCN Targets (Aichi targets), the federally endorsed Oceans Panel (Scott Morrison 2020), the High Ambition Coalition for Nature and People (2021) and the federally endorsed Global Oceans Treaty (Minister Leh 2021).

- Australia signed the **Global Oceans Treaty** in February 2021 with Minister Ley stating that ‘threats from pollution, overfishing and changing climates are a global challenge, and that’s why we have joined the alliance calling for formal protection of **30%** of the world’s ocean by 2030’ (Minister Ley 2021)
- In 2020 Prime Minister Scott Morrison joined the **Oceans Panel** with 14 other countries (oceanpanel.org) committing Australia to a **30%** target, a well-managed network of marine parks and Sustainable Ocean Plans by 2025. (See Figure 1 and Appendix 2. for Priority Actions)
- ‘Australia has joined an international coalition of countries committed to forging a global deal to conserve **30 per cent of the world’s land and sea**, in order to halt the loss of biodiversity. Prime Minister Scott Morrison told the G7 Summit that Australia will join the **High Ambition Coalition (HAC) for Nature and People**, an intergovernmental group of 60 countries. The HAC is a global pact to protect 30 per cent of the world’s land and sea, to halt the loss of species and ecosystems. G7 leaders have championed global biodiversity targets and with a view to supporting these global targets, Australia is committing to protecting a combined 30 per cent of domestic land and ocean by 2030’ (pm.gov.au/media 2021).



To reiterate, the Act allows for the declaration marine protected areas and habitat protection plans and this should be prioritised in the administration of the revised Act.

6.2 There is little mention of restoration in the current Act (word count restoration=1, restore=0, rebuild=0, target=0, recover=0). TMP strongly recommends that this be addressed in the revised Act. Considering the vulnerable state of our marine ecosystem health, the cumulative impact of multiple threats and the UN Decade of Ecosystem Restoration 2020-2031 there needs to be provisions in the revised Act for restoring damaged marine ecosystems in Tasmania.

6.3 The revised Act should improve links to the Tasmanian State Coastal Policy 1996 as it is also under the RMPS of Tasmania and is directly relevant to the *LMRM Act*. This would broaden the *LMRM Act's* scope to include all state waters and 1km inland. This would allow for improved management across realms (catchments -> wetlands -> marine) and make the establishment of marine protected areas more ecologically functional. For example, Prahalad et al. (2014) found that three species, *Aldrichetta forsteri*, *Arripis truttaceus* and *Rhombosolea tapirina*, are important to commercial and recreational fisheries and contributed about 20% of the total catch numbers in the Circular Head saltmarshes of north-western Tasmania. In addition, the mean density of > 72 fish per 100 m<sup>2</sup> is the highest yet reported from Australian studies and indicates that Tasmanian saltmarshes provide higher value habitat for fish compared to elsewhere in Australia. Increasing the scope of the Act in this way would provide for improved management of fish habitat and direct the establishment of marine protected areas in coastal areas to link with terrestrial National Parks and Ramsar listed wetlands.

## 7. P16 Question

Question 1. How should the costs and benefits from living marine resource use be calculated? You may want to consider biological, economic, Aboriginal cultural and social aspects.

7.1 The calculation of costs and benefits of marine resources needs to include:

- The value to non-extractive users. 'The general public value knowing that an area is being protected even if they never interact with it' (Navaro et al 2020). For example, Bennett and Gillespie (2010) estimate that implementation of marine parks in 10% of waters in the south-west of Australia alone would generate \$400 million in non-use values.
- The value of ecosystem services should be considered in the benefits by natural capital accounting and carbon accounting.
- The benefits need to consider current and future generations.

8. Question 2. Should there be a return to the State and the Tasmanian community from the use of a public resource? In addition to economic return, what Aboriginal cultural, environmental, and social benefit could be returned?

8.1 Tasmanians for Marine Parks (TMP) considers that there should be a return to the State and the Tasmanian community for the use of a public resource although the 'return' may not necessarily be in economic terms but may also include satisfaction in recreational fishing, enjoyment of diving in marine protected areas or just the knowledge that our marine environment has 'national parks' that are reserved and protected from fishing.

With regards to returns in the form of levies given to fishing bodies on p 44 of the Discussion paper, TMP would suggest that some resources be allocated to a group that could undertake educational activities.

Those who have been granted access to Tasmanian's living resources should also be mandated to undertake reporting of catches and bycatch. This would enable more information to be collected and technology (apps and boat tracking devices) should be used.

## 9. P19. Questions

### Question1. Should the legislation include a framework for resource sharing?

9.1 If a resource sharing framework is to be adopted, then Tasmanians for Marine Parks would strongly suggest

- the establishment of a baseline area (% to be determined) of marine protected areas to ensure the conservation of ecological processes under the Objectives of the Act (minimum areas explicitly stated)
- the establishment of Management Plans for protected areas and high conservation area habitats
- fisheries population base line limits and rebuilding targets to be set that are linked to instruments for action in the Act
- implementation of Harvest Strategies

### 2. If yes, what elements might comprise such a framework?

9.2 TMP recommend that a resource sharing framework be underpinned by marine spatial planning to determine spatial uses/values with clear conservation targets. For example, fish species population targets of 40% as is used in other states (pers comm. 2022) and target areas for MPAs in each bioregion.

## Theme 2 – Fisheries Management Framework

### 10. P28 Questions

#### 1. Do you think the current management framework for fisheries making is effective, easy to understand and supports the objectives of the Act?

10.1 TMP suggests that the current management framework be modernised (Harvest Strategies, risk assessment, eco-system based management, marine spatial planning, marine protected areas, precautionary principle, cross-realm planning and multi-disciplinary advice input) and that at present the management framework could be improved. As mentioned previously the Objectives of the Act (RMPS framework) are mostly relevant but the administration of the Act is too unspecific in its' response to current challenges. The nature of marine management is complicated, and it is suggested that marine spatial planning and resource allocation (with minimum areas set aside for conservation) may provide a more structured approach that different communities of interest can understand.

#### 2. What improvements would you like to see?

10.2 Under the current Act in Section 32 – Management Plans it is stated that 'A Management Plan consists of rules relating to a specified fishery.' This is the only

statement under this Section and severely lacks how a Management Plan relates to the objectives of the Act. TMP would suggest that the Act be improved by explicitly stating that a Management Plan further the objectives of the Act by considering

- the biological, economic and social characteristics of the fishery
- the impacts or potential impacts of the fishery on its associated ecosystem or ecosystems, including impacts on non-target species of fish or other aquatic resources
- any ecological factors that could have an impact on the performance of the fishery
- the risks to determine the most serious risks and set out strategies for addressing those risks
- the methods for monitoring the performance of the fishery and the effectiveness of the plan, including performance indicators, trigger points for review or action and progress reporting
- the share of aquatic resources to be allocated to each fishing sector under the plan
- the method for adjusting allocations of aquatic resources between the different fishing sectors during the term of the plan
- the compensation that will be paid to persons whose licences or licence entitlements are compulsorily acquired to reduce the share of aquatic resources allocated to the commercial fishing sector if needed to ensure stock recovery. Note that Western Australia has specific legislation relating to this in the *Fishing and Related Industries Compensation (Marine Reserves) Act 1997*

In addition, a Management Plan should be reviewed <5 years or when a biological indicator is triggered and have a statutory time frame. In effect this is the idea of a Harvest Strategy (outlined on p28 of the Discussion Paper) and Tasmanians for Marine Parks support the embedding of this management tool in the new Act.

## 11. P29 Questions

1. Do the current requirements for the use of scientific advice and evidence provide adequate support for the sustainable management of Tasmania's living marine resources?

11.1 The word 'science' or 'scientific' does not appear in the current Act. This needs addressing. The Act needs to clearly outline the role of scientific advice (marine ecology and fisheries science, indicators, trigger points), the role of scientific observers on boats and specify when the Minister *must* heed this advice.

The West Australian legislation includes science in its' list of 'Means of Achieving Objects of the Act' by 'managing aquatic resources and aquatic ecosystems on the basis of relevant scientific data and principles' (10b, p13). It is suggested that a clause similar to this be embedded in the revised Act.

2. Are there alternative approaches to the integration of science into decision-making that should be considered?

11.2 Yes these include:

- marine spatial planning as outlined by Ross et al. 2020. IMAS Hobart. The conclusions from this pilot study are:

- That there is a wide variety of data and information available that can be used to support good decision making within the context of marine planning in the pilot study region.
- That spatial mapping tools (e.g. ArcGIS) can be used to illustrate spatial data, making it more accessible and relevant to decision makers.
- That decision support tools (e.g. Marxan with Zones) can provide an effective method of rationalising multiple data layers by using these to create optimisation maps of marine use zones which meet defined planning objectives.
- Ecosystem based management as outlined in 2.1 point 13.

## 12. P32 Questions

### 1. What should be considered when determining who should be the decision maker at each stage of the fisheries management framework?

12.1 There needs to be representation from all interested parties (scientists, fishers, aquaculture, tourism, conservationists, Aboriginal groups, ENGOs, advisory councils and the public) (refer to 5.1). The role of science (ecology and fisheries) should be given weight in decision making. The wording in the Act should state that the Minister *must* heed the advice from such a group.

Participation at the decision-making table also needs to be multi-disciplinary and include representatives from other government departments who are administering other acts under the RMPS of Tasmania. These include the Scientific Advisory Committees (*TSP Act*), the Special Advisory Committee (*NCA 2002*) and the National Parks and Wildlife Advisory Council (*NPRM Act 2002*).

Tasmanians for Marine Parks would also suggest that fisheries scientists and marine ecologists be at the table of management decisions for fisheries in other states. Section 162 of Act provides for Agreements with other States for purposes relating to the exercise of good governance and yet no such agreements are currently in force. For example, it is known that recruitment of Southern Rock Lobster (SRL) mostly comes from SE South Australia (25%), Eastern Great Australian Bight (27%) and SW Western Australia (20%) (p332 Shepherd & Edgar 2013, Hartman et al. 2019 p 17) and that levels of egg production in some areas of the stock are low, specifically the Southern Zone of South Australia (< 15%) (Linnane et al. 2020). As this impacts the Tasmanian fishery, representatives from Tasmania should be at the decision-making table in SA.

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## Appendix A

South Australia's Marine Parks Act 2007

Part 2—Objects of Act 8—Objects

(1) The objects of this Act are—

- (a) to protect and conserve marine biological diversity and marine habitats by declaring and providing for the management of a comprehensive, adequate and representative system of marine parks; and
- (b) to assist in—
  - (i) the maintenance of ecological processes in the marine environment; and
  - (ii) the adaptation to the impacts of climate change in the marine environment; and
  - (iii) protecting and conserving features of natural or cultural heritage significance; and
  - (iv) allowing ecologically sustainable development and use of marine environments; and
  - (v) providing opportunities for public appreciation, education, understanding and enjoyment of marine environments