



South-East Commonwealth Marine Reserves Network Management Plan Evaluation

Summary Report



8 February 2022

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EXECUTIVE SUMMARY

On 24 August 2021, Sustineo was engaged by the Director of National Parks (DNP) to conduct an evaluation of Parks Australia's (PA's) implementation of the South-east Commonwealth Marine Reserves Network Management Plan 2013-2023 (the SE Management Plan). The SE Management Plan is the primary tool for the conservation and management of the South-east Australian Marine Park Network (SE Network). It sets out the approach to management activities for the 10-year period commencing 1 July 2013.

This Summary Report is a brief outline of the full Final Evaluation Report which has been delivered to PA with detailed evidence-based findings presented in conjunction with the methods by which they were developed. The primary aim of the evaluation of the SE Management Plan was to inform the development of the next SE Management Plan. As this is the first Management Plan for the SE Network, there is not a complete data set of natural values baselines against which to measure change. The evaluation methodology therefore placed an emphasis on contextual monitoring and demonstrations of effort towards progress, rather than attempting to quantify degrees of change in the management and conservation of biodiversity and other natural and cultural values of the SE Network. The technical audit incorporated in this evaluation is a more zero-sum analysis which gives binary ratings based on whether there was evidence that prescribed actions and outcomes have been commenced or achieved, with less emphasis on the broader context of progress towards the management goals of the SE Management Plan. This combined audit/evaluation enables comparison and conclusions to be drawn across the span of the SE Management Plan.

The most significant finding overall is that the SE Network is a fulcrum of innovative conservation management activity and in-depth research in an area of previously low knowledge. These combine to generate profound scientific energy and new understanding of a unique region of the Commonwealth Reserves estate. In this respect, the SE Network and the progress made against planned outcomes in its Management Plan are fine examples of PA's management approach.

In relation to progress against the SE Management Plan, most (four) of the seven Strategies have been implemented to a 'good with some concerns' standard. One Strategy (education and enforcement) was assessed as 'good', whereas two Strategies (assessments and authorisations; and Indigenous engagement) were assessed as 'significant concern' and have the most room for improvement.

Of the 32 prescribed Actions in the SE Management Plan, 87.5% have been implemented to some degree. Similar, 95% of the 20 Outcomes were assessed as ongoing or achieved to some degree.

This does not mean that it is perfect or that development of Management strategies is complete. It means that what has been put in place, the way it has been implemented to date, and the flow on effects of activities it has stimulated among external researchers and other stakeholders, is a very good start for an enduring and evolving management approach.

1. INTRODUCTION

On 24 August 2021, Sustineo was engaged by the Director of National Parks (DNP) to conduct an evaluation of Parks Australia’s implementation of the South-east Commonwealth Marine Reserves Network Management Plan 2013-2023 (the SE Management Plan). The SE Management Plan is the primary tool for the conservation and management of the SE Network. It sets out the approach to management activities for the 10-year period commencing 1 July 2013. It was designed to provide certainty to users of the marine reserves by giving effect to decisions on zoning and allowable activities that were made at the time of proclaiming the marine reserves following an extensive consultation and planning process. Sustineo delivered an Evaluation Report detailing the evaluation methodology, evidence, findings and recommendations. This Summary Report is a brief outline of the full Final Evaluation Report.

Evaluation approach

The primary aim of this evaluation of the SE Management Plan is to inform the development of the next SE Management Plan. An assessment of the comprehensiveness and effectiveness of the seven management strategies nominated in the SE Management Plan are addressed where possible within the overarching achievement of progress, and in responding to a series of evaluation questions. PA requested that the evaluation should assess achievement against five evaluation themes, to maximise comparability with the 2021 draft Management Effectiveness Framework (MEF) and subsequent evaluations of progress against National Park Management Plans. These themes are:

- Direct management actions
- Enabling management actions
- Condition and trend of natural, cultural and heritage values
- Status and trends of pressures and drivers
- Status and trends of social and economic benefits.

The evaluation approach was developed in consultation with PA staff, and relied on documentation provided by them, augmented by documents found in the public domain and stakeholder interviews conducted by the evaluation team. It was a combination of a technical audit technique and mixed-methods evaluation of a variety of data sources (both of which are detailed in the Final Report). Specifically, this involved primary data collection from 16 interviews with primary stakeholders as well as secondary source data collection via a desk review of all DNP provided documents and other publicly available reporting. The outputs of these techniques were collated into a synthesised data set which was analysed to reveal insights on positive or negative trends towards the planned outcomes for each of the SE Management Plan’s strategies.

The technical audit approach used to underpin the assessment of progress against the current SE Management Plan formed part of the evaluation of the five themes, but particularly for the *Direct management actions* and *Enabling management actions* themes. The audit methodology is based on PA’s internal audit framework for technical audits of management plans, which has been in place since 2012. This methodology was updated to reflect the new developments and assessment classifications contained in the draft PA MEF, as well as being tailored to the language used in the SE Management Plan.

Additional stakeholder engagement will be conducted by PA through the comprehensive ‘Have your say’ stakeholder engagements on development of the new SE Management Plan, which are scheduled to be carried out after completion of this evaluation. This involves inviting the public and organisations

with a special interest in the SE Network, to comment on issues raised in the report and broader topics they believe are of interest for developing the next management plan for the SE Network.

SE Network context

The SE Network is the first of a national network of Commonwealth Marine Reserves (CMR) established to protect Australia’s ocean resources, and at the same time to allow for sustainable use¹. The SE Network was established in 2007 to ensure that representative examples of the variety of marine habitats and the marine life they support are protected.

The SE Network comprises 14 Commonwealth Marine Reserves, of which 13 were proclaimed under s. 344 of the Environment Protection and Biodiversity Conservation (EPBC) Act, and one, Macquarie Island Commonwealth Marine Reserve, which was proclaimed under the National Parks and Wildlife Conservation Act 1975.

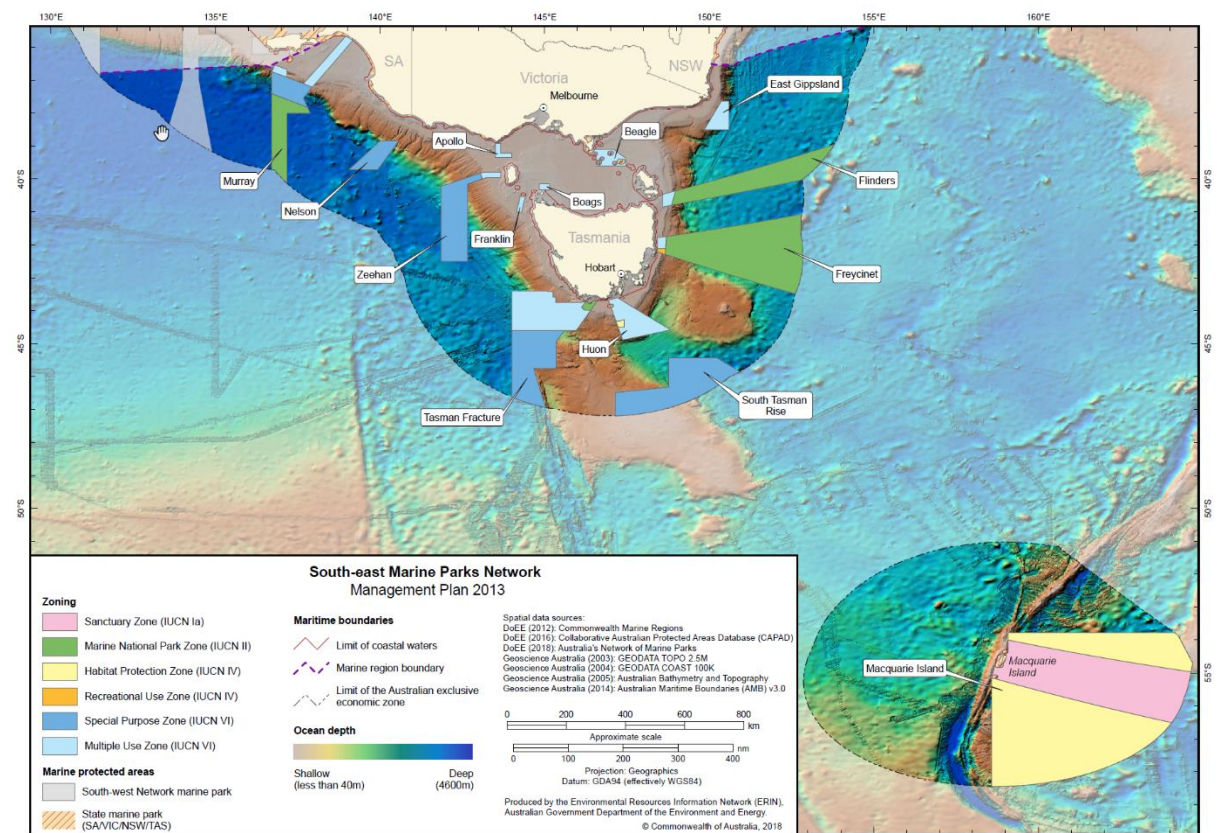


Figure 1: The 14 marine parks in the SE Network showing its six different zone types.

The DNP is required to prepare a Management Plan for each CMR under the EPBC Act (ss. 366), but the Act allows a single Management Plan to be prepared to cover a number of reserves. The 2013-2023 Management Plan for the SE Network is the first of these.² As the first of five national networks and the large Coral Sea Marine Park (managed equivalent to a Network), the SE Network was in many ways the test case and possibly the most difficult because at the time that it was initially being designed in the late 1990s, it overlapped with some of the nation’s biggest fisheries areas including trawling areas. Therefore, attempting to manage it as a Marine Reserve was a somewhat

¹ Director National Parks, *A Guide for Users of the South-East Commonwealth Marine Reserves Network*, July 2013, pg. 1.

² Director National Parks, *South-East Commonwealth Marine Reserves Network Management Plan 2013-23*, Australian Government, 2013, pg. 6-7.

contested endeavor. It is understood that one of the reasons for selecting the SE Network as a test case was that it was less used by recreational stakeholders and its environmental values were little known, so it was something of a blank canvas. As a result, many of the design principles had to anticipate what was there, with a large portion of the knowledge on boundaries and constraints coming to light since the design of the SE Network. This is some of the challenging context that the managers of the SE Network have had to grapple with over the implementation life of the SE Management Plan.


2. TECHNICAL AUDIT FINDINGS





The technical audit incorporated in this evaluation is a more zero-sum analysis which gives binary ratings based on whether there is evidence that prescribed actions and outcomes have been commenced or achieved, with less emphasis on the broader context of progress towards the management goals of the SE Management Plan. However, it is noted that because the current SE Management Plan is the first for the SE Network, and baseline information is minimal prior to the plan, a detailed assessment of trends was not always possible and there is not a complete data set of natural values baselines against which to measure change. Therefore the audit ratings do not reflect the whole picture of progress made over the life of the SE Management Plan. This is balanced out by the broader evaluation methodology and its narrative findings which places an emphasis on contextual monitoring and demonstrations of effort towards progress, rather than attempting to quantify degrees of change in the management and conservation of biodiversity and other natural and cultural values of the SE Network.



Specifically, based on the auditing procedures performed, and the evidence obtained, progress has been made on the implementation of the SE Management Plan, as evaluated against the criteria. The SE Management Plan had seven overarching Strategies with 32 actions and 20 outcomes. Of the 32 actions, 9.4% (3) have been assessed as completed with no further action, 50.0% (16) as implemented but ongoing, 15.6% (5) as partially completed or implemented, 12.5% (4) as implemented with modification, and 12.5% (4) as not having been commenced. For the 20 outcomes, 0.0% (0) have been assessed as completed with no further action, 70.0% (14) as implemented but ongoing, 25.0% (5) as partially completed or implemented, nil (0) as implemented with modification, and 5.0% (1) as not having been commenced.

The summary results of this assessment by Strategy are presented below in Table 1. Underpinning this assessment is an individual assessment of each Strategy’s prescribed actions and outcomes. Table 2 presents the breakdown of the overarching assessment of progress of each Strategy in the SE Management Plan. A copy of the full Assurance Report is found at Annex A of the Final Evaluation Report.

Table 1: Summary of the technical audit assessment of each strategy

Strategy	Status/trend	Rationale
1. Improve knowledge and understanding of the conservation values of the Marine Reserves Network and of the pressures on those values		As a result of at least 18 projects focussed on research and monitoring of conservation values and pressures both nationally and exclusively in the SE Network, the knowledge and understanding of conservation values in the Network has increased. Many voyages included extensive mapping to build baseline knowledge of the parks across the SE Network. There is a strong relationship with the National Environmental

Strategy	Status/trend	Rationale
		Science Program's (NESP) Marine Biodiversity Hub, which is clearly a key partner in conducting research.
2. Minimise impacts of activities through effective assessment of proposals, decision-making and management of reserve-specific issues		Several actions have outdated terminology and lack relevance to the operations in the SE Network. SE Network management actions need to be further refined and reduced in the next management plan to improve their relevance to the Assessments and Authorisations Team in Canberra who work across multiple networks that have more recent and standardised management plans. While the authorisations process has been streamlined, there is a requirement to improve the useability of the authorisations portal. Some concerns also remain around the need to further streamline and automate processes for monitoring the obligations attached to licenses and permits, particularly around provision of data to improve flows of information to the DNP compliance team.
3. Protect the conservation values of the Marine Reserves Network through management of environmental incidents		Most actions under this strategy have been largely delivered as planned, with no significant gaps. The exception is around collaboration with responsible agencies and assisting with responding to environmental incidents, but this action is now coordinated at the national level. Further evidence is needed to build up the knowledge base on impacts associated with environmental incidents, including how these are identified and managed. Additionally, the South-East Critical Incident Action Plan was a key planning document for the SE that was drafted but never finalised. It was subsequently superseded by a national Environmental Incident and Emergency Response Strategy when the remaining AMP Plans came into effect..
4. Facilitate compliance with this Management Plan through education and enforcement		Progress is underpinned by ongoing compliance risk assessments which inform a broader risk-based compliance plan, along with the establishment of the Vessel Monitoring System (VMS) on some commercial fishing vessels which has been significant for improving surveillance of illegal fishing activities in the SE Network. Further attention is needed for user-based reporting of non-compliant activity.
5. Promote community understanding of, and stakeholder participation in, the management of the Marine Reserves Network		The Communication and Education Strategy was finalised in 2016. It clearly aligns with the SE Management Plan in its aims and objectives, but has not been updated since as intended, and lacks substance in defining performance indicators and timelines. Parks Australia is leveraging partnerships well to aid communications resources getting out to various communities and key audiences, including through South-East Marine Park Advisory Committee (SEMPAC). Park signage has been updated or installed in many locations, mainly in Tasmania. Although implemented under Strategy 6, Explore Sea Country is an effective project for educating students,

Strategy	Status/trend	Rationale
		teachers, and the pilot school communities about the cultural values of Tasmanian sea country.
6. Support involvement of Indigenous people in management of Commonwealth Marine Reserves		Parks Australia's understanding of cultural values and approach to Indigenous engagement has developed and improved over the life of the plan. This allowed implementation of projects such as the Explore Sea Country curriculum pilot that is currently being successfully delivered. This project is a limited but crucial aspect of communicating cultural values and learning from Tasmanian Indigenous communities. Relationships and trust between Parks Australia and Tasmanian Indigenous communities have developed and continue to strengthen. Significant work is still to be done to achieve the desired outcomes of this Strategy. Broadly, and particularly before 2019, Indigenous engagement was largely not sought in contextually appropriate ways, partly due to the lack of PA staff experienced in this space, and the actions under this strategy not being appropriately defined. The inclusion of this Strategy as a discreet whole has ensured concerted effort was made over time to find appropriate ways of engaging with Indigenous communities in the management of the SE Network.
7. Evaluate and report on the effectiveness of this Management Plan through monitoring and review		In line with requirements for monitoring and reporting on progress, implementation plans for each phase of the SE Management Plan were designed and executed. Management activities appear to be adaptive and, whenever possible, based on new information and knowledge – particularly regarding research priorities from SEMPAC and the science community.

Key:




Status	Threshold	Trend	Threshold
Good	Management actions have been largely delivered as planned, with no significant gaps, or management is efficient and effective due to adequate enabling services being in place.	Trend stable 	There has been no change in the status of this matter over the life of this plan.
Good with some concerns	Most management actions have been delivered as planned but some important actions were not delivered, or some enabling management services are not adequate, leading to decreased efficiency or effectiveness.	Trend getting worse 	There has been a negative trend in the status of this matter over the life of this plan.
Significant concerns	Some aspects of management have been adequately delivered, but many important actions have not been fully delivered, or some enabling management services are adequate, yet many are not, leading to substantially reduced efficiency or effectiveness.	Trend getting better 	There has been a positive trend in the status of the matter.
Poor	Failure to deliver most planned management activities; or many enabling management services are not adequate, leading to greatly reduced efficiency or effectiveness.		

Table 2: Summary of prescribed management actions and outcomes assessment

Strategy	Components	Completed	Ongoing	Partially completed or implemented	Implemented with modifications	Not commenced
1	Actions		2	2		
	Outcomes		4			
2	Actions	1	2			3
	Outcomes		2			
3	Actions		4			
	Outcomes		1	1		
4	Actions	1	5	2		
	Outcomes		2	1		
5	Actions		1	1	1	
	Outcomes		2			
6	Actions		2		1	1
	Outcomes			2		1
7	Actions	1			2	
	Outcomes		3	1		

3. FINDINGS AGAINST THE EVALUATION THEMES

The assessments of the audit summarised above were synthesised with primary and secondary source data analysis to produce the evidence-based evaluation findings on the effectiveness of the SE Management Plan. Before briefly summarising these under each Management Plan Evaluation Theme below, this section highlights the findings that are considered pertinent to the development of the next SE Management Plan, to build upon the considerable achievements of the 2013–2023 Plan and reflect upon lessons to be learned for the management of Australian Marine Park (AMP) networks in general.

The most significant finding overall is that the SE Network is a fulcrum of innovative conservation management activity and in-depth research which both combine to generate profound scientific energy and new understanding of a particularly unique region of the Commonwealth Reserves estate.

In terms of structure, the importance of having 10-year Management Plans as part of PA’s MEF was highlighted. Each new plan is a huge administrative, consultation and policy development task which would be a problematic burden to replicate too often. It is also considered critical for legislative longevity on authorisations and compliance that the SE Management Plan sets long-term standards, enabling enduring efficiencies such as class approvals. Finally, it is believed that 10-year plans are more effective for setting out management approaches to emerging and long-term trends such as climate change.³

Also overall, there is a need to establish clarity of terminology and consistency in the structure and levels of goals or activities referred to in the SE Management Plan. In addition to confusing use of terminology, it is recommended that in future the SE Management Plan’s outcomes and actions are

³ Views expressed in interviews with a range of PA staff and scientific stakeholders during November 2021.

reconsidered to better align with the context of the SE Network. For example, the technical audit ratings of achievements against actions under Strategy 6 were largely negative—not because of lack of effort or achievement in relation to Indigenous engagement and acknowledgement of cultural values; but because stated prescribed actions were inappropriate for the SE Network context.

Despite these contextual challenges, it is highly recommended that PA continue to invest in, and reward PA staff innovation on, Indigenous values education initiatives such as the Explore Sea Country project. This activity should be documented and replicated as part of the new SE Management Plan.

Finally, it is assessed that the development of the AMP management effectiveness system for CMR management and its application to identify priority values and pressures for monitoring is a very significant achievement under the SE Management Plan. The inclusion of an adaptive cycle approach as part of the system is also a significant development for the management of marine reserves. It is recognised by those who were interviewed that this will enable PA staff and their collaborators to be responsive to new scientific knowledge as it is acquired, without the need to wait for the next management review or planning forum.

However, it does not signal mission accomplished for PA. The consensus amongst scientific and parks management experts is that it is merely a start point. This evaluation has identified that there are three key areas for emphasis in risk assessment and prioritisation in the drafting of the next SE Management Plan. These are:

1. The capacity to actually monitor the priorities identified using valid techniques and verified research operating procedures applied to establishing a baseline, followed by periodical monitoring frequency to produce sufficient data points for tracking their status. How is PA going to ensure consistent and continuous measurement of how a given value is improving as a result of being in a protected zone?
2. Establishing understanding of spheres of influence, particularly in relation to values affected by cumulative effects of multiple pressures.
3. Where this monitoring of priorities reveals negative trends in the status of values or concerning impacts of pressures, what actions is PA willing to take, or willing to facilitate?

These are challenging next steps that herald the maturation of the SE Network management, which need to be adopted if Management Plans are going to continue to be progressive and proactive, rather than settling into maintaining an observational status quo.

Direct management actions Theme

The Direct management actions Theme is not defined in the SE management Plan, but is described in the 2021 *Draft Australian Marine Parks Science Strategy 2022-2028* as encompassing identification of the most critical science and management needs to ensure the finite resources available for research, monitoring, and management in AMPs are used as effectively as possible. Of these critical management needs, perhaps the most tangible and publicly visible in the SE Network is authorisations of permits and enforcement of prohibited zone limitations. Review of source documents provides evidence indicating that PA has established effective and transparent processes for assessment, decision-making and authorisation of activities, with some room for improvement.

From 2013, under the initial implementation of the SE Management Plan, the process for issuing permits and licences became much clearer and easier to manage because criteria and classifications were clearly articulated in the Plan. This was especially beneficial for researchers who were able to better understand the definition of boundaries, priorities and basis for decisions, than under previous interim arrangements.

The technical audit of actions relating to the direct management actions of authorisations and compliance processes found that over the life of the SE Management Plan, authorisation processes have been streamlined to improve efficiency and effectiveness, and to avoid duplication. In July 2018, the rollout of new Management Plans across the PA estate included the implementation of a customer focused online authorisation system for marine park users, the Customer Relationship Manager (CRM)⁴. This was a significant effort towards streamlining and was expected to reduce the regulatory burden on users and similar to systems already used by other marine resource management agencies.⁵ However, evaluation findings consistently highlighted shortcomings with the existing online authorisation system which is a source of frustration for users, PA staff and scientists trying to contribute information to authorisation processes. It was found to be out-dated, inaccessible and inadequate for the quantity of data and variety of users that seek to upload information onto it. The need for overhaul and improvement of online authorisation system is a clear finding of the evaluation.

The evaluation found that the pillar of PA compliance monitoring in the SE Network, is the VMS which became operational in the SE Network on 1 July 2014 and is mandatory on Commonwealth commercial fishing vessels.⁶ VMS is now also used in some State fisheries. Since that time the system has proven to be very successful in significantly reducing the frequency of unintended potentially non-compliant activity in AMPs. This in turn has reduced compliance related investigation effort required by both PA and Australian Fisheries Management Authority as well as for the commercial fishing fleet due to reduced unintended non-compliance. The evaluation team verified that all VMS alerts for vessels traveling below 5 knots are examined by the compliance team to determine if any enforcement action is required.⁷ The compliance team generates Media Releases on all civil litigations and prosecutions to raise awareness of AMP rules and to encourage compliance.

Another notable achievement under the Management Plan is the delivery of SE Network compliance training and education resources, as part of Strategy 4 (Action 22)—supporting initiatives and programs which promote best practice standards that guide use and minimise impacts on the marine environment. One such resource is *A Guide for users of the South-east Commonwealth Marine Reserves Network* released in July 2013 to provide user-specific information for complying with the prescriptions in the SE Management Plan⁸. It was evidently reviewed in 2016/17 to update content and has recently been reviewed and updated again.⁹ While this example is notable, PA recognises there is more that could be done under this action.

Given the remoteness and the predominance of offshore deep sea marine parks in the SE Network, one of the most challenging direct management responsibilities under the SE Management Plan is to increase knowledge and understanding of the values and pressures within them (Strategy 1). There is evidence of extensive direct management activity in the last 10 years collaborating with research and commercial stakeholders to enable mapping of increasing portions of the SE Network. It is evident

⁴ Parks Australia, *South-east Marine Parks Network Management Plan 2012-23: Implementation Plan Report Consolidation Phase 2017-18 – 2020/21*, pg. 11.

⁵ Parks Australia, *South-east Commonwealth Marine Reserves Network Management Plan 2013-23, Years 1-4 Foundation Phase Status report 2013/14-2016/17*, pg. 23.

⁶ Parks Australia, *South-east Commonwealth Marine Reserves Network Management Plan 2013-23, Years 1-4 Foundation Phase Status report 2013/14-2016/17*, pg. 30.

⁷ Parks Australia, *South-east Marine Parks Network Management Plan 2012-23: Implementation Plan Report Consolidation Phase 2017-18 – 2020/21*, pg. 15.

⁸ Parks Australia, *South-East Commonwealth Marine Reserves Network Implementation Schedule 2013/14-2016/17. 2015/16 (Year 3) – Report on Progress*, 2016, pg. 8.

⁹ Views expressed in interviews with a range of PA staff and scientific stakeholders during November 2021.

that the SE Network continues to work with the scientific community to encourage the generation and sharing of mapping data and to convey their priority requirements as an end user through membership of multiple marine mapping and survey Committees and Advisory Groups.

One of the key tasks identified by the evaluation team for the effective management of the SE Network is identification of priorities for tracking human activity pressures and natural value ecosystem indicators. The development of a SE Network Science Plan in 2020 and 2021 used a data-driven approach to identification of priorities that help direct PA science funding and highlight management actions that are likely to have the greatest benefit. Network Science Plans are also intended to provide a vocabulary for communication with other national and state level government agencies, raising the level of understanding and awareness of AMPs. The SE Network Science Plan is currently out for external consultation and it is expected to be published in early-mid 2022¹⁰.

Enabling management Theme

There is a lack of clarity in the documented definitions and understanding of the distinction between the *Direct management actions* Theme and *Enabling Management* Theme. Apart from separate subheadings in annual progress reporting, there is no distinction between the two Themes in SE Network management reporting, division of activities or discussion of progress. However, from the prescribed actions under this Theme, the evaluation team surmised that it encompasses the background management functions that support the 'direct' management actions prescribed under the previous Theme.

The evaluation of progress on prescribed actions under this theme found that preparation of a Communications Education and Awareness (CEA) Strategy for the SE Network was made a priority activity to deliver in 2014/15. Since then several updated iterations have been put into action. The latest version of the SE Network Education and Awareness Action Plan was developed in 2020/21 and incorporates advice and priorities identified by the South-East Marine Park Advisory Committee and aligns with a new national CEA program for CMRs.¹¹

Despite the creation of CEA Strategies, it was found that in practice there has been uncertainty on whether Networks have responsibility for their own communications and education initiatives or whether they must defer to a whole-of-Parks approach. The evaluation found that this issue has not been adequately resolved to date and continues to be an obstacle to efficient progress on some of the SE Management Plan's actions.

A most notable success has been the SE Network cultural values education initiative *Explore Sea Country*, which is detailed below. The evaluation has recommended that PA continues to invest in Indigenous values education initiatives and reward these efforts to increase their visibility across the DNP with a view to expanding the approach with similar initiatives throughout the National PA domain.

The strongest achievement of SE Network management over the life of the SE Management Plan has been the development and consolidation of research collaboration and consultation partnerships with numerous research and science organisations. At the centre of these partnerships is the Marine Biodiversity Hub of the National Environmental Science Program (NESP) which worked with PA staff to make substantial early progress towards SE Management Plan outcomes. It was consistently

¹⁰ Parks Australia, *South-east Marine Parks Network Science Plan 2022-27* (Draft provided by PA staff), November 2021.

¹¹ Parks Australia, *South-east Commonwealth Marine Reserves Network Management Plan 2013-23, Implementation Plan Report, Consolidation Phase 2017/18-2020/21*, pg. 20-21.

communicated to the evaluation team that research relationships with the Marine Biodiversity Hub have grown in strength every year over the life of the SE Management Plan.¹² It is clear they are a key partner in conducting research and are involved in identifying the priority research areas and values, as well as in the development of the new AMP management effectiveness system, SE Science Plan, and other management resources.

It was found that the enabling management actions of information management, meeting reporting obligations and achieving impact from information flows to and from the SE Network, could be enhanced through the creation of a clear depiction of all SE Network reporting obligations and information flows upwards and outwards. It is suggested that this would be a valuable shared visual reference in the next SE Management Plan, similar to the one included in the current draft AMP management effectiveness system. The inclusion of a SE Network information flows map would present an opportunity to periodically compare the “ground truthed” reality of information flows to the SE Management Plan’s intended version.

Information management capacity is also central to the achievement of the evaluation requirements for the management of the SE Network (Strategy 7, Action 32). To this end it is recommended that lessons from this evaluation be captured by PA staff to facilitate the periodical evaluation process in future. This might include documenting preferred reporting formats, the most useful scale and scope for evaluations, and information sources and key documentation that can be gathered in preparation for the commencement of evaluations.

¹² Views expressed in interviews with a range of PA staff and scientific stakeholders during November 2021; and Parks Australia, *South-east Commonwealth Marine Reserves Network Management Plan 2013-23, Years 1-4 Foundation Phase Status report 2013/14-2016/17*, pg. 13.

Explore Sea Country cultural values education program

The Explore Sea Country project has been implemented in the classroom and through field-based excursions so that all Tasmanian learners develop a respect for, and understanding of, Aboriginal and Torres Strait Islander Histories and Cultures through the Early Years Framework and the Australian Curriculum. In this way students have increasing awareness and understanding of Aboriginal traditional knowledge and cultural values of Sea Country throughout the earlier years of childhood which is intended to help increase future generations participation in the management of Sea Country in the SE Network and elsewhere. It is expected that this will help to protect Sea Country from threats and pressures, to minimise damage, and to rehabilitate and improve the resilience of Sea Country.

The resources and professional learning experiences that teachers receive appear to be extensive and practical. Including topics such as the importance of Indigenous connection to coastal and marine territories, traditional craft such as shell necklace making, kelp water carriers and muttonbirding, relationships and trust between Parks Australia (primarily through the responsible Senior Marine Parks Officer) and Tasmanian Indigenous communities have been developed and continue to strengthen. It was observed that:

The development of the education program has been a conduit for beginning to build relationships with Indigenous communities and creating trust so that they can share knowledge about their cultural values in forms that they feel comfortable. Much better than cold calling community representatives and asking them to share their culture.

These connections are assessed as invaluable for ongoing collaborations and Indigenous engagement and demonstrate the potential benefits of commitment to Indigenous communication and education initiatives.

Another emerging initiative is the Tasmanian-Victorian ancient land bridge project. Within the SE Network the Beagle Marine Park lies in Bass Strait between Victoria's Wilsons Promontory and Tasmania's Flinders Island and covers an area of the sea floor that was once dry land and that formed part of a land bridge connecting Tasmania to Victoria during the last ice age, when sea levels were much lower. As the ice age ended, glaciers melted and sea levels rose, isolating Tasmania about 11,000 years ago. The higher parts of that land bridge are now Bass Strait islands. Aboriginal people lived and hunted in this area for tens of thousands of years before rising sea levels cut them off from the Australian mainland at the end of the last Ice Age. The waters of the marine park continue to be culturally significant for Bass Strait Aboriginal communities, and many still rely on the natural resources provided by the sea in this area. Through the Apollo Our Marine Parks Grants Round 2 (OMPG2) project, an augmented reality learning initiative is being created which will expose users to an immersive virtual experience of what the ancient land bridge might have looked like.

Natural, cultural and heritage values Theme

This Theme is understood to encompass developing an understanding of the natural, cultural and heritage values contained within the SE Network, and the management actions required to contribute to their conservation. The evaluation found that collaborative mechanisms and activities encouraged by the SE Management Plan have consistently contributed to capacity to monitor the condition and trends of natural values in the SE Network. For example, the recent AMP management effectiveness system (Monitoring, Evaluation, Reporting and Improvement (MERI) prioritisation model) has been a flagship achievement for not just the SE Network but PA and national marine research more broadly.

As described under enabling management with reference to education initiatives, the Explore Sea Country project is an ideal example of Indigenous engagement and promoting cultural values. The

success of this project is even more significant given the challenges of Indigenous engagement in the SE Network under Strategy 6. It is evident that this project was enabled by the considered prioritisation process initiated by Marine and Island Parks Branch staff examining all potential SE Network cultural value conservation activities against consistent criteria. This approach has succeeded in developing projects that are both practical and uniquely valuable.

As highlighted as a general finding across the SE Management Plan at the beginning of this section, the wording of some prescribed actions are not relevant or fully applicable for the SE Network. This was particularly evident in Strategy 6. The evaluation found that the predominantly deep-sea environment of the SE Network makes some actions (e.g. Action 27) unsafe and unrealistic. Specifically, undertaking marine park management including monitoring and threat mitigation activities, surveillance and through Indigenous ranger initiatives is not possible in the context of infrequent ocean research voyages which are risky and involve little to no exposure to Indigenous values. An updated SE Management Plan should reconsider the scope and wording of prescribed actions relating to the conservation of heritage and cultural values in the SE Network, so that they can become more relevant and achievable in the unique regional context.

It was observed that the unique composition of deep-sea environments and less human-driven pressures in the SE Network presents a research opportunity to track the effects of climate change with less other external variables present. Specifically, because of a long period of absence of external human impacts in many areas of the SE Network, it is a rare example of the timeframes and dynamics of seabed recovery from human-driven pressures such as trawling. The evaluation findings reinforced the view of many researchers that there is an opportunity for the SE Network to serve as a control group for comparison against the impacts of human-driven pressures in other AMPs. An example of this type of research opportunity was compiled as part of the evaluation and is presented below.

Study of the recovery of SE Network seamounts from trawling

Seamounts are considered a high priority for management as they are a unique deep-sea environment with distinctive benthic communities and vulnerable to human activities (e.g. benthic trawling) and climate change. The SE Network Huon and Tasman Fracture Marine Parks contain many small seamounts supporting deep-sea coral reefs that rank amongst the most biologically diverse on a global scale. Prior to reservation these seamounts were fished in the 1980's and 1990's and understanding the recovery dynamics of these deep-sea coral communities has been identified in the AMP management effectiveness system prioritisation as a monitoring focus.

A 2020 study points to this type of protected zone recovery tracking which “shows the Tasman Fracture and Huon Australian Marine Parks (AMP) enclose many seamounts assessed to be lightly impacted or to have no measurable signs of fishing impacts. This indicates the dominant framework-building scleractinian coral, *S. variabilis*, has been protected.”

Similarly, a 2021 study of the deep-sea Basketwork eel, (*Diastobranthus capensis*) numbers and spawning locations and conditions in the SE Network found that:

The aggregation was protected in a marine park in 2007 following a decades-long impact from bottom trawling, indicating that the population can be expected to stabilise and recover. Monitoring the aggregation's status, and validating seasonal spawning, provide important opportunities to examine conservation-led recovery in the deep sea as part of Australia's new national strategy of Monitoring, Evaluation, Reporting and Improvement (MERI) for conservation values within marine parks.

A more recent report in November 2021 also concluded that:

lobster abundance and average size continues to increase within the MNPZ in response to protection. Interestingly this has been matched by a similar increase in adjacent fished offshore waters as changes in fishery quotas and market conditions over the last decade have resulted in a significant decrease in fishing effort in remote offshore waters, allowing some significant stock recovery.

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¹³ Hayes, K. R., Dunstan, P., Woolley, S., Barrett, N., Howe, S. A., Samson, C. R., Bowling, R., Ryan, M. P., Foster, S., Monk, J., Peel, D., Hosack, G. R., Francis, S. O. (2021). Designing a Targeted Monitoring Program to Support Evidence Based Management of Australian Marine Parks: A Pilot on the South-East Marine Parks Network. Report to Parks Australia and the National Environmental Science Program, Marine Biodiversity Hub. Parks Australia, University of Tasmania and CSIRO, Hobart, Australia.

¹⁴ Williams A, Althaus F, Maguire K, Green M, Untiedt C, Alderslade P, Clark MR, Bax N and Schlacher TA (2020) The Fate of Deep-Sea Coral Reefs on Seamounts in a Fishery-Seascape: What Are the Impacts, What Remains, and What Is Protected? *Front. Mar. Sci.* 7:567002. doi: 10.3389/fmars.2020.567002.

¹⁵ Williams, A.; Osterhage, D.; Althaus, F.; Ryan, T.; Green, M.; Pogonoski, J. A Very Large Spawning Aggregation of a Deep-Sea Eel: Magnitude and Status. *J. Mar. Sci. Eng.* 2021, 9, 723. <https://doi.org/10.3390/jmse9070723>.

¹⁶ Institute for Marine and Antarctic Studies, J. Monk, N. Perkins and N. Barrett, *Tasman Fracture Marine park MNPZ shelf reef surveys 2021, Interim Report to Parks Australia*, November 2021.

Status and Trends of Pressures and Drivers Theme

The SE Management Plan broadly defines pressures as human-driven processes, events and activities that may detrimentally affect the values of the reserves network. Pressures are characterised by two main types: those that are directly associated with human activities and those that are related to the effects of climate change. There is no definition of drivers as distinct from pressures in the SE Management Plan, but it is defined in the draft MEF as Biophysical (e.g. sea surface temperature, climate) and social and economic factors (fuel prices, travel restrictions) outside of management control that could influence PA's ability to effectively manage the parks.

The technical audit assessed that there has been considerable research and analysis on the effects of fishing as a pressure in selected areas of the SE Network. However, further effort is required on other pressures, such as noise and light pollution from shipping and mining, oil pollution, and invasive species and diseases, to understand the specific impacts these pressures are having on SE Network values.¹⁷ PA self-identified the need for improving understanding of pressures as a priority for the Consolidation Phase of the SE Management Plan, indicating some effort was being directed to adapt management in response to recognising knowledge gaps.

Scientific stakeholders consistently referred to cumulative impact assessment as an area for necessary on-going effort for management of the SE Network, in which climate change pressures can best be monitored. This imperative was highlighted in the most recent SE Network State of Knowledge summary:

Climate change is a significant pressure for the South-east Network. The marine environments of South-eastern Australia are a global hotspot. Sea surface temperatures off Tasmania's east coast are warming at a rate of 2.3 °C per century – between two and four times the global average. The warm nutrient poor waters of the East Australian Current extend about 350 km further south than they did in the 1970s.¹⁸

Social and economic benefits Theme

Substantial work has been done on developing ecological baselines and improving knowledge of ecological values, but less work appears to have been done regarding social and economic values. In the draft MEF, this is described as relating to significant benefits to Traditional Owners, local communities, and reserve users. However, the SE Management Plan was written with a focus on conservation values and there is acknowledgement that more work needs to be done in the social and economic areas, and to this end a NESP project has produced recommendations for social and economic baseline metrics¹⁹. The potential for understanding of social and economic benefits in the SE Network has been enhanced as a result of the AMP management effectiveness system prioritisation process work in partnership with NESP (as part of the D6 project) to develop social and economic baselines for the AMPs.

The evaluation found that SE Network management relationships with commercial fisheries and especially tourist charter industry and recreational fishing groups remains a work in progress. Whilst

¹⁷ Director National Parks, *South-East Commonwealth Marine Reserves Network Management Plan 2013-23*, Australian Government, 2013, pg. 19.

¹⁸ Parks Australia, *South-east Marine Parks Network State of Knowledge Summary*, (Draft) November 2021, pg. 22

¹⁹ Navarro, M., Langlois, T.J., Burton, M., Hegarty, A., Aston, C. Kragt, M.E., Rogers, A. Social and economic benchmarks of the Australian Marine Parks. Report to the National Environmental Science Program, Marine Biodiversity Hub. The University of Western Australia, 2020.

there is substantial understanding of commercial fisheries and other economic stakeholder group activities in the SE Network, there is not substantial evidence of establishment of effective mechanisms for regular engagement in this sector.

Finally, it is evident that there are unresolved concerns about the potential for the National Offshore Petroleum Safety and Environmental Management Authority to insufficiently consider marine park values, including the use of seismic testing and reservations regarding the oil and gas approval process, particularly in dealing with cumulative impacts.

4. WANT TO KNOW MORE?

This Summary Report is a brief outline of the full Final Evaluation Report which has been delivered to PA with detailed evidence-based findings presented in conjunction with the methods by which they were developed. If you would like to know more about the evaluation and technical audit findings and the detailed evidence-base that underpins them, please see the full report²⁰. If you would like to engage, an additional stakeholder engagement activity will be conducted by PA through the comprehensive 'Have your say' stakeholder engagements on development of the new SE Management Plan, which is scheduled to be carried out following completion of this evaluation. This involves inviting the public, as well as people and organisations with a special interest in the SE Network, to comment on issues raised in the report and broader topics they believe are of interest for developing the next management plan for the SE Network. Monitor the PA website for further details on when and how the engagements will commence.

²⁰ May A., E. Mackenzie, N. Davis and N. Thatcher (2022) *South-East Commonwealth Marine Reserves Network Management Plan Evaluation: Final Report*, report to the Director of National Parks (Australian Government Department of Agriculture, Water and the Environment), Sustineo Pty Ltd.