

EXECUTIVE SUMMARY

SOLITARY ISLANDS MARINE PARK

SAFEGUARDING A UNIQUE MARINE PROTECTED AREA

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This report has been prepared by the National Parks Association of NSW Coffs Coast Branch.

The report's purpose is to document 'the values, threats and opportunities of the marine park' and to 'identify critical issues to increase nature positive solutions'.

The Coffs Coast region contains separate but adjacent Marine Protected Areas: The New South Wales Solitary Islands Marine Park is contained in New South Wales State Waters, while the adjoining Commonwealth Solitary Islands Marine Park extends offshore into Australian territorial waters. Further offshore, the Central Eastern Marine Park provides complementary protection for deep-ocean ecosystems.

While this report focuses on the New South Wales Solitary Islands Marine Park, it recognises that the adjoining state and Commonwealth marine parks function as a single connected ecosystem. Future planning and management should therefore adopt a coordinated ecosystem-scale approach across both jurisdictions.

The report describes the values of the New South Wales Solitary Islands Marine Park; assesses threats to the continued condition and existence of those values; and identifies opportunities to improve the condition and performance of the park, recognising its importance as a globally recognised transition zone between tropical and temperate marine ecosystems.



Humpback whale.
Photo: James Sherwood

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Visit www.npansw.org.au/solitary-islands-marine-park for a full copy of the report.

A MARINE PARK WORTH PROTECTING FOR FUTURE GENERATIONS

Situated at a rare ecological crossroads where tropical and temperate waters meet, the Solitary Islands Marine Park stands as a vital refuge of exceptional biodiversity, anchor for Indigenous culture, and cornerstone of a massive ridge-to-reef conservation landscape that must be safeguarded for generations to come.



Little Egret. Photo: Gary Dunnett

The New South Wales Solitary Islands Marine Park sits where the East Australian Current meets cooler Tasman Sea waters, creating a rare overlap of tropical, subtropical and temperate marine life. This convergence gives the park exceptional biodiversity and makes it nationally significant for marine conservation, research, education, nature-based tourism and regional identity.

Together, with the adjoining Commonwealth Solitary Islands Marine Park, and a suite of terrestrial Protected Areas, including the newly announced Great Koala National Park, it contributes to one of Australia's most significant ridge-to-reef conservation landscapes, spanning approximately 600,000 hectares, supporting ecological resilience, cultural values, and nature-based economic activity.

The park protects genetically distinct and locally adapted coral communities, a diverse range of habitats ranging from estuaries and seagrass meadows to rocky reefs, and a unique offshore island group containing habitats that are rare in New South Wales.

It also supports a variety of threatened and migratory species, including Grey Nurse Sharks, Black Rockcod, marine turtles, shorebirds and humpback whales.

The park has strong cultural connections for the Yaegl and Gumbaynggirr peoples and underpins the Coffs Coast's reputation as an Ecologically Certified Destination, supporting tourism, diving, charter operations, education and community wellbeing.

WHAT THE REVIEW FOUND

While the park's sanctuary zones provide highly effective ecological sanctuaries, its overall management framework is severely outdated, fragmented across competing agencies, and fails to coordinate across connected state and federal waters.

This report demonstrates that the New South Wales Solitary Islands Marine Park remains in relatively good ecological condition and delivers measurable conservation benefits, especially in areas protected by sanctuary zones. Scientific evidence reviewed in the report demonstrates that sanctuary zones support significantly greater fish abundance, biomass, and species richness than areas open to commercial and recreational fishing.

Conversely, the report concludes the park's governance and management settings are no longer fit for purpose. The current operational plan does not reflect up-to-date understandings of Aboriginal co-management practices, climate change, and contemporary ecosystem-scale marine planning, nor does it address the issue of fragmented agencies with competing mandates.

Further, the New South Wales and Commonwealth marine parks span a single ecological system, yet are managed separately under different jurisdictions. Their shared name creates confusion about their distinct governance arrangements. The state-Federal joint management arrangement of Great Barrier Reef Marine Park offers guidance for a more consistent governance model for Marine Protected Areas generally.

Conservation planning happens in two different regional spheres:

1. The broader Temperate East Marine Region stretches from the southern boundary of the Great Barrier Reef, Queensland, to Bermagui, New South Wales, and out to Lord Howe and Norfolk Islands; and

2. On a more localised level, the Tweed-Moreton Marine Bioregion stretches from just south of Agnes Water to the northern side of Nambucca Heads.

Only 4% of the Temperate East Marine Region is fully protected and only 6.8% of the Tweed Moreton Marine Bioregion, reflecting an urgent need for New South Wales to rapidly find pathways to advance Marine Protected Area planning to meet Australia's commitment to the Kunming-Montreal Global Biodiversity Framework 30x30 target, with a deadline of 2030 (only four years away).

INSUFFICIENT PROTECTION

With only 12% of its area designated as strict sanctuary zones, the Solitary Islands Marine Park remains the most under-protected marine park in New South Wales, falling short of national and global conservation targets.



Look At Me Now Headland, Moonee Beach Nature Reserve. Photo: James Sherwood

The most urgent strategic issue is the under-protection of the New South Wales Solitary Islands Marine Park's biodiversity values. Sanctuary zones only account for 12% of the park, the lowest proportion of any marine park in the state, and far below the 30% benchmark agreed to under the Kunming-Montreal Global Biodiversity Framework.

It is evident throughout the report that no-take sanctuary zones are the gold standard for biodiversity recovery, ecological resilience, and long-term fish productivity. Long-term monitoring within the park validates this: recreationally and commercially targeted species, including snapper, pearl perch, venus tuskfish, and grey morwong, were found to be significantly more abundant and/or larger within sanctuary zones than 'in other management zones where fishing is allowed.

Unfortunately, the park's current sanctuary zones are too small, fragmented, and poorly configured. This lack of structural design severely disrupts ecological connectivity.

GROWING PRESSURES

The park's remarkable marine life is under persistent pressure from cumulative threats, such as climate change, fishing, pollution and agricultural runoff.

The report identifies a range of accelerating and often cumulative threats. Climate change is the most significant long-term pressure, with warming seas, marine heatwaves, acidification and shifting currents already altering reef systems, species distributions and trophic relationships. Evidence of ecological change is emerging across the park, including kelp decline, emerging risks to turtles and seabirds, which all point to a system under increasing strain.

These climate-driven pressures are compounded by land-based runoff, stormwater, horticulture nutrients and pollutants, sedimentation and marine debris that continue to affect estuaries and nearshore waters. Fishing pressure, bycatch, illegal activity in sanctuary zones and the continued presence of trawling in parts of the park, add to the cumulative stresses that threaten the long-term resilience of this globally significant marine ecosystem.

The report identifies several high-priority hotspots, including South Solitary Island, North Solitary Island, Pimpernel Rock (Commonwealth), northern estuaries and Coffs Harbour's nearshore reefs, for stronger protection and more focused management.



Bottlenose dolphins. Photo: Gary Dunnett

WHAT'S MISSING

Bound by an outdated operational plan, the park's defense is severely weakened by major gaps in high-resolution seafloor mapping, and a failure to integrate Traditional Ecological Knowledge.

The New South Wales Solitary Islands Marine Park operational plan is deficient; a new plan must commit to 30x30 across the Marine Protected Area network.

Evidence-based management is weakened by knowledge gaps.High resolution seabed mapping has taken place in the Commonwealth Solitary Islands Marine Park but not in the NSW component, leaving a major gap; this limits the ability to establish ecologically designed sanctuary zones. Compliance and enforcement data are not being systematically and publicly reported, making it difficult to assess the real scale of illegal fishing or zone effectiveness.

Long-term monitoring is strong in some areas, such as seabirds, fish assemblages and coral research, but remains patchy for turtles, soft-sediment habitats, spillover benefits and climate thresholds. The report also finds Traditional Ecological Knowledge is not yet adequately integrated into routine planning and monitoring, representing a knowledge gap and a missed governance opportunity.

KEY RECOMMENDATIONS

To reverse this decline, New South Wales must rapidly expand sanctuary protections to 30%, shift management to a dedicated conservation authority, establish a formal joint State-Federal management process, true co-management with community and First Nations, and secure long-term scientific funding.

The report sets out clear nature positive recommendations. The most cost-effective and enduring solutions are often those that harness nature's ability to recover, adapt and thrive:

1. **Expand Sanctuary Zones:** The first priority is that sanctuary zone coverage should be expanded toward 30% of the park area using Comprehensive, Adequate and Representative planning principles, supported by full seabed mapping and MARXAN-based spatial design, which considers the full environmental, social and economic costs of planning. Expansion should prioritise ecological connectivity, recognising the full range of inshore to offshore habitats, including deeper reef habitats, and pelagic areas.

2. **Realign Governance:** Governance should be realigned with conservation objectives by moving primary management responsibility to a conservation-focused authority and establishing a formal joint management agreement with Parks Australia. Consideration should be given to the idea of expanding on the Great Barrier Reef Marine Park state-Federal joint management model to create an Australian Federal Marine Park Authority in partnership with the states, to provide consistent governance for MPAs generally; this would be of particular benefit to the Solitary Islands region. The park should also be recommended for National Heritage Listing, based on its unique values.

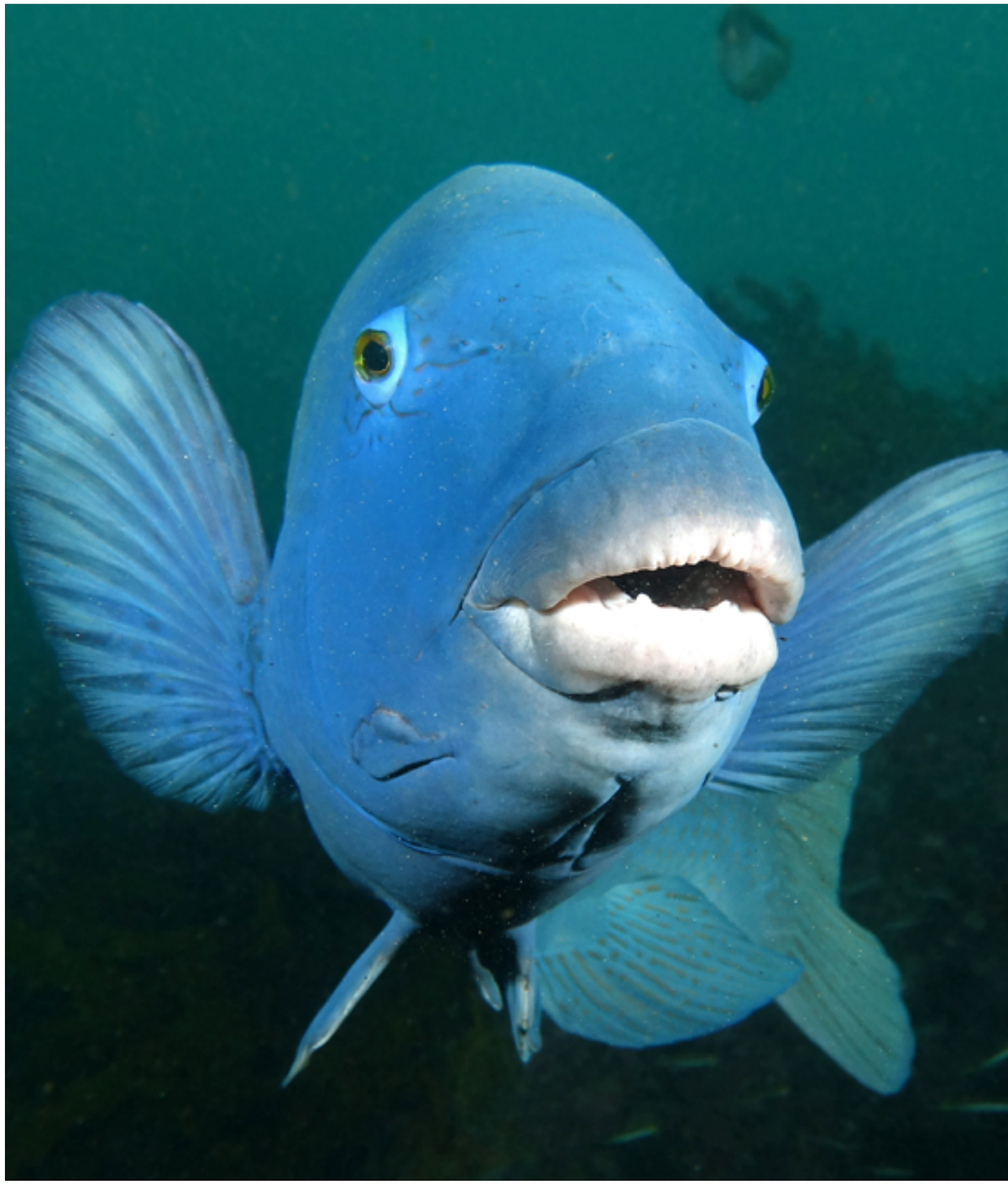
3. **Embed Aboriginal Co-Management:** Aboriginal co-management should be embedded through structured power-sharing with the Yaegl and Gumbaynggirr Nations, backed by Sea Country planning, accredited ranger training pathways and long-term committed funding.

4. **Strengthen Practical Management Tools:** Including park-level compliance reporting, surveillance and enforcement and accountability for illegal activities and abandoned gear. An investment should also be made into training and capacity building for park management. Management processes should be adaptive with a built-in ability to adapt to changing circumstances.

5. **Catchment Management:** Catchment management should be strengthened through measurable water quality targets, improved riparian protection, estuarine monitoring, and tighter controls on high-risk runoff sources.

6. **Fund Continuous Monitoring:** Long-term ecological monitoring should be treated as core activity rather than short-term project work. Fund long-term, ecological monitoring and research.

7. **Expand Research and Education:** Education through schools and community is critical for underpinning co-management practice, acquiring social license, and for recruiting new blood into marine park management.



Blue grouper. Photo: John Turnbull

CONCLUSION

The upcoming legislative reviews present a once-in-a-generation opportunity to modernise the Solitary Islands Marine Park, ensuring this priceless asset is preserved for future generations.



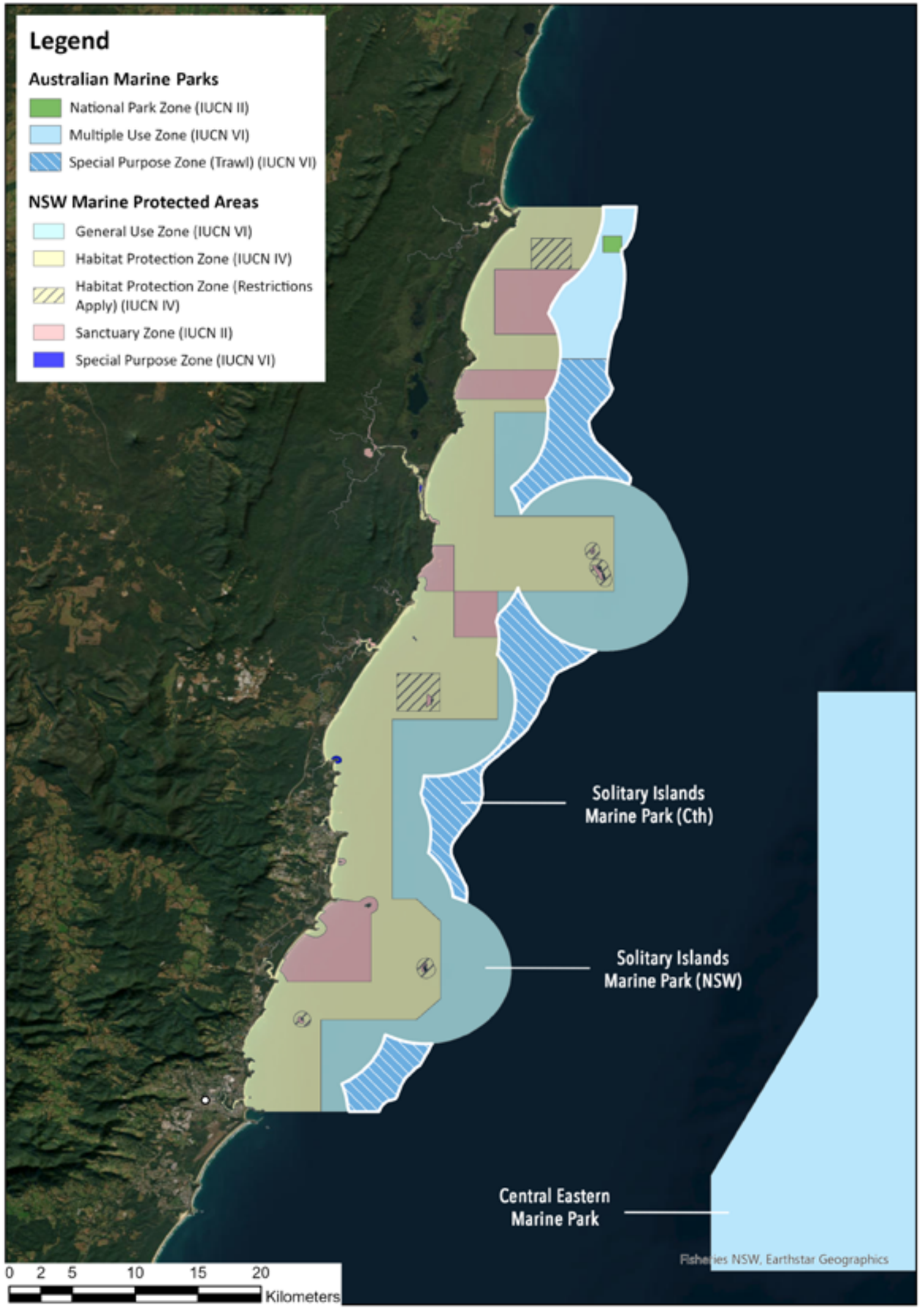
Diver with fish, South Solitary Island. Photo: John Turnbull

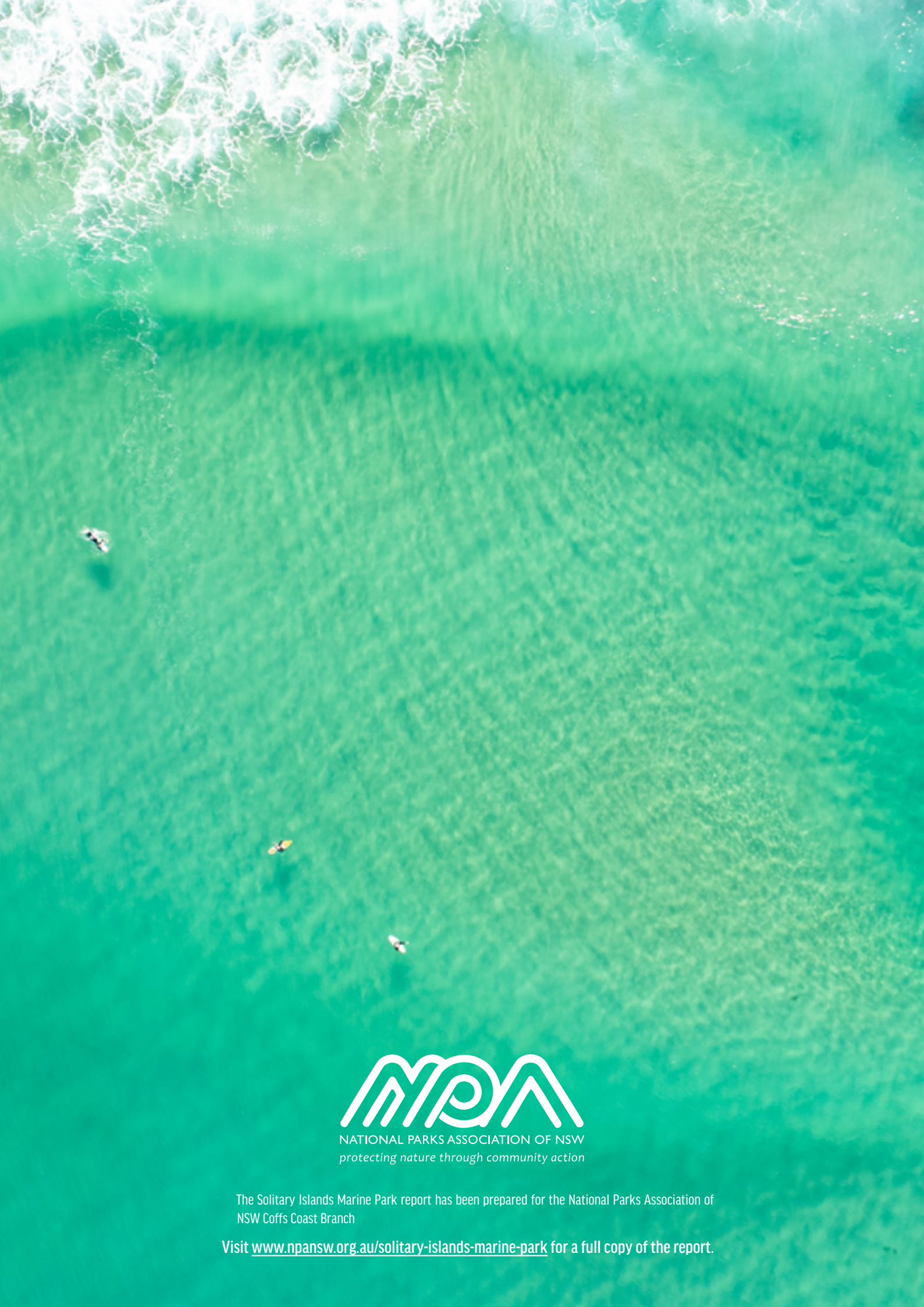
This report concludes that the New South Wales Solitary Islands Marine Park is one of New South Wales' most important marine conservation assets. However, a number of changes are urgently required if the park is to retain and enhance its current values and contributions to the region, state and nation.

Park management must urgently shift beyond single-issue responses. As pressures on the park's unique values continue to mount, cumulative impacts can drive ecosystems towards irreversible change. Recognising and avoiding ecological tipping points is essential to safeguarding the region's exceptional natural, economic and cultural values.

The upcoming New South Wales marine park review, alongside the forthcoming Commonwealth review of the Temperate East Network, offers a once-in-ageneration opportunity to apply best-practice Marine Protected Area management for one of Australia's most remarkable marine ecosystems and provide a significant contribution to the nation's goal to highly protect 30% of its marine waters. The Solitary Islands Marine Park is a globally significant meeting point of tropical and temperate species; it is not only a biodiversity hotspot but also a living laboratory for understanding and responding to a changing ocean.

To ensure that this subtropical treasure is protected for future generations, urgent action must be taken to align sanctuary design with best-practice planning, move towards genuine co-management, improve compliance, and ensure sustained political support. Marine sanctuaries are the most effective nature-positive solutions, allowing ecosystems to recover, rebuild biodiversity and strengthen resilience to climate change. If the recommendations are implemented, the New South Wales Solitary Islands Marine Park can continue to protect an exceptional subtropical marine hotspot, while supporting culture, tourism, local livelihoods and ecological resilience for future generations.





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