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The Hon. Robyn Parker MP
The Hon. Katrina Hodgkinson MP
C/- Ms. Petrina Alcock
Senior Policy Officer
PO K220
Haymarket 1240

Our ref: RB018-12

29 June 2012

Dear Ministers,

Re: Submission on the Report of the Independent Scientific Audit of Marine Park in NSW

The Sydney Coastal Councils Group Incorporated (SCCG) is a voluntary Regional Organisation of Councils representing 15 Sydney coastal and estuarine Councils (<http://www.sydneycoastalcouncils.com.au/>). Established in 1989, it promotes cooperation and coordination between Member Councils with the mission to provide leadership through a coordinated approach to sustainable coastal management.

We commend the NSW Government on commissioning the Independent Scientific Audit of Marine Parks in NSW ('the Audit') and congratulate the Audit Panel on implementing a thorough and transparent process.

We attach our Submission in relation to the Audit. Our submission follows your online submission form. It has been reviewed and approved by our Technical Committee (comprising professional staff of Member Councils) and Full Group (Member Council delegates).

We look forward to the Government's report and recommendations.

Yours sincerely,

Clr. Wendy McMurdo
Chairperson

SCCG EXECUTIVE SUMMARY

The NSW Marine Estate is a valuable Australian resource. It should be valued as a portfolio of diverse natural and economical assets and invested in as such (Eadie & Hoisington 2011).

The SCCG support the majority of recommendations, with varying levels of agreement. The thrust of the SCCG submission centres on the following:

- a) The formation of the Independent Scientific Committee.
- b) All responsibilities placed upon Local Government regarding coastal management are adequately resourced and consistent across jurisdictions.
- c) Areas of State and Local Government compliance and enforcement should be developed so that the role of officers and rangers are clearly defined and resourced. Enforcement needs to be enhanced to conserve the marine environment.
- d) All management decisions under the *Marine Parks Act 1997* must adhere to the triple-bottom line approach of ESD to ensure the best outcome for the sustainable management of the Marine Estate, environmentally, socially and economically.
- e) The best management and conservation techniques for near and inshore environments should be thoroughly researched and applied. These habitats sequester high levels of carbon and provide breeding grounds and nurseries for marine species.
- f) Educate and involve the public and encourage a custodian mentality in the sustainable use of the NSW Marine Estate through community engagement programs and events. This will assist enforcement and increase conservation of the NSW Marine Estate.

PRINCIPAL RECOMMENDATIONS	SCCG Response*
*This reflects the level of agreement with the recommendations on a scale of 1-5 where 1 is strongly disagree and 5 is strongly agree.	
Principal recommendation A	
<i>The governance of the NSW Marine Estate be reorganised by bringing the entire estate under one legislative and administrative structure that is closely aligned with the five catchment management authorities covering the NSW coastal drainage systems.</i>	3
General comments on Principal recommendation A Please see Comments for R12.	
Principal recommendation B	
Science for the NSW Marine Estate be reorganised under an independent Scientific Committee. <i>The Audit Panel also makes recommendations about the organisational approach that this Committee should take and suggests a number of research priorities. In particular, these priorities call for greater emphasis on research in the social and economic sciences and the application of these findings to management.</i>	4
General comments on Principal recommendation B The SCCG agree, provided the application of the research findings of social and economic science to management adheres to the triple-bottom line approach to ensure the best methods of sustainable management; environmentally, socially and economically.	
THEMES AND INDIVIDUAL RECOMMENDATIONS	
Governance	
R3 The Audit recommends the formation of a Scientific Committee, which is independent of government agencies and established to oversee strategic research in the Marine Estate in NSW. It is further recommended that this Committee be composed of experts in the marine sciences, economics and social science with an independent chair who reports directly to the Minister(s).	5
Comments on R3 The SCCG agrees provided the Committee is constituted by appropriately qualified individuals across a range of relevant disciplines. Criteria could include a minimum of ten years scientific experience and preferably a PhD. The selection process should be open and transparent.	
R4.6.b <i>The NSW Government needs to ensure that complementary fisheries research is done to improve the understanding of the threat that fishing poses to the conservation of biodiversity in NSW and the environmental protected values of the Marine Estate. The focus of this research should include developing strategies for improving fish stocks and managing them in a positive way to meet the reasonably expected needs of recreational anglers.</i>	5

R9.4 The proposed Coastal and Marine Management Authority (see Recommendations R12 to R15) should include in its legislation drafting brief the following:

Provide for the design and management protocols of the NSW Marine Estate to be overseen by the Independent Scientific Committee (Recommendation R3). Each of the five proposed sections of the NSW Marine Estate should have appointed, **in collaboration with the relevant catchment management authority and the regional bodies** proposed in this report, **a local scientific committee for planning of sections of the Marine Estate** (see Recommendations R3 and R12 to R15). The bodies would have **expertise in both natural and social sciences**.

3

R12 The Audit Panel recommends the **replacement of the Marine Parks Authority, the Coastal Management Panel, NSW Fisheries and any other relevant bodies with a Coastal and Marine Management Authority**. This Authority should be supported by a **rationalisation of the plethora of legislation** that currently overlays the NSW Marine Estate. This new Authority, to be effective, must be **given concurrent rights on land use developments** that have the potential to affect the NSW Marine Estate.

2

Comments on R12

The SCCG supports a simplified and rationalised framework however; do not support the Coastal and Marine Management Authority as proposed.

The SCCG questions the effectiveness of such an Authority without an assessment of the vast complexity and inter-relationships of the associated responsible agencies, relevant legislation and policies. The outcome of this Audit reflects a very clear understanding of scientific issues however a slight naivety in terms of the existing coastal management processes and practice in NSW.

The SCCG advocates that the NSW Government should be reviewing coastal and marine management to include but not limited to:

- Current and future use and values of the coastal zone;
- Coastal zone management activities in NSW including governance arrangements and funding;
- The implementation of objectives and principles of the NSW Coastal Policy;
- Review and improved integration of the NSW Coastal Policy into land use planning and development assessment;
- Increasing the capacity and resource availability of Local Government; and
- The role of communities and industries in integrated coastal management.

The SCCG are concerned with the definition and application of the “concurrency roles and rights” recommended in this report. We also seek greater clarification of the potential terrestrial boundaries and the technicalities of this ‘Authority’, including the proposed liaison and partnerships with Local Government.

The very significant roles, responsibilities and investments of Local Government and their management of estuaries and foreshores areas have not been recognised throughout this report.

By retaining a wide scope of expertise across the Marine Parks Authority, in areas such as coastal planning, fisheries management, conservation of marine and coastal biodiversity and climate science, ensures all facets of the Marine Estate are addressed.

R13 The Audit Panel recommends that the **NSW Marine Estate be managed by the Coastal and Marine Management Authority**, with the estate being divided into **five sections that correspond with the adjacent catchment management authorities**. An issue that will have to be resolved in determining these boundaries is that of the marine bioregions that do not entirely correspond to terrestrial boundaries. This will clearly be a technical issue for resolution

2

Comments on R13

The SCCG are concerned that the Panel's naivety in relation to the intricacies of State and Local Government legislation and policies has resulted in this lack of regard for the political complexities, management responsibility and vested interests in the economy, conservation and social values of the coastal marine zone. Terrestrial boundaries and the parties that manage them need to be reviewed.

R14 The Audit Panel recommends that **new legislation consolidating all relevant Acts be drafted, and that this legislation give this authority real powers to coordinate with the activities of the Natural Resources Commission** and work on a day-to-day basis with the catchment management authorities, terrestrial and marine park authorities, and local government (inasmuch as it relates to the coastal environment)

2

R15 The Audit Panel recommends that there be a **formal relationship between the Coastal and Marine Management Authority and the independent Scientific Committee** (Recommendation R3). This would probably best achieved by the chair of the Scientific Committee being a member of the Coastal and Marine Management Authority.

2

R16 The Audit Panel recommends that **compliance rangers be integrated with other ranger staff** in the new authority and that no staff carry batons, handcuffs or any other such intimidating paraphernalia.

2

Comments for R16

The SCCG advocates that existing areas of State and Local Government compliance and enforcement be developed so current officers have a clarified definition of their role and, are resourced and equipped to carry out this role. More clarity around enforcement and an increase in resourced rangers is required to monitor marine parks and conserve our marine environment.

International and Domestic Requirements

R1 In a strict sense, **NSW is obliged to do only what it agrees with the Australian Government**, which is the Party to the international conventions and agreements covered by the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth). In the Audit Panel's opinion, the **current arrangements pose no risk** to the NSW Government that in regard to its management of marine parks it will be found in breach of international conventions.

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R2 The Audit Panel is of the further opinion that the **current system of marine parks as established in NSW be maintained and mechanisms be found for enhancing the protection of biodiversity in the identified gaps**, namely within the Hawkesbury and Twofold Shelf marine bioregions

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Legislative Reform

R5.5 From the information available to the Audit Panel, it would appear that there is a need to further extend the Monitoring, Evaluation and Reporting (MER) system to include a greater focus on marine, estuarine and inshore environments as a priority. This should include monitoring for invasive species in and around areas where boating or shipping activity is particularly intense. Several further improvements to coastal management and protection should include the following:

New legislation is required to implement Recommendation R15, which should include provision for **a risk framework that allows the targeting of management resources towards high-risk vectors** (e.g. boats that have come from areas with known pest species or large marinas) **and a management regime for ballast-water exchange**. The legislation should also provide for **closure powers across the NSW Marine Estate to support management of pest or disease outbreaks**. We have already recommended (Recommendation R4) that better understanding the risk to marine biodiversity posed by non-indigenous species (not just the currently-named pest species) be considered a high-priority research area.

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R9 The **proposed Coastal and Marine Management Authority (see Recommendations R12 to R15)** should include in its legislation drafting brief the following:

- [properly constituted cost-benefit evaluations
- assessment of social and economic benefits and impacts as an integral part of zoning and management
- better integration of land-use planning
- oversight by an independent Scientific Committee].

3

Land use planning/regulation

R9.3 [The proposed Coastal and Marine Management Authority (see Recommendations R12 to R15) should include in its legislation drafting brief the following:]

Better integration of land-use planning regulations with NSW Marine Estate management protocol is to be mandatory. For instance, any land-based development or activity proposal that is within a prescribed distance upstream from a marine park ought to be automatically referred to the Coastal and Marine Management Authority for assessment of potential impacts under State Environmental Planning Policy No 71. In addition the Coastal Protection and Marine Management Authority should have a concurrence role in local government planning decisions

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Comment on R9.3

In order for any party to perform this function, clarity regarding the various NSW definitions for the 'coastal zone' is required. Uncertainty exists because of the use of the definitions of "Coastal Zone" in both Section 117 Direction 2.2 Coastal Protection and SEPP No. 71 and "coastal areas" in the Sea Level guideline. For more, please see <http://www.sydneycoastalcouncils.com.au/sites/default/files/sccgpackage2010.pdf> which collates the SCCG activities and advocacy as part of the consultation phases for the NSW Coastal Management Reforms, 2010.

The SCCG also seeks greater clarification of the potential terrestrial boundaries and the technicalities of this 'Authority', including the proposed liaison and partnerships with Local Government.

R12 The Audit Panel recommends that the NSW Government **mandate better integration of land-use planning regulations with the NSW Marine Estate and marine park management.**

5

Research Framework

R4 The Audit Panel recommends that **funding be allocated to addressing research**

5

shortcomings [and identifies some priority areas].

R5 From the information available to the Audit Panel, it would appear that there is a **need to further extend the Monitoring, Evaluation and Reporting (MER) system to include a greater focus on marine, estuarine and inshore environments as a priority**. This should include monitoring for invasive species in and around areas where boating or shipping activity is particularly intense. Several further improvements to coastal management and protection [are identified]

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Comments on R5

Estuarine and inshore environments contain the ocean's vegetated habitats, in particular mangroves, salt marshes and seagrasses. These environments cover less than 0.5% of the sea bed, but account for more than 50%, perhaps as much as 71%, of all carbon storage in ocean sediments (Nellerman et al., 2009). An example of such an environment is a seagrass meadow. Seagrasses occur in sheltered areas and shallow waters, growing in soft sediments such as sand or mud and, consequently, prevent erosion. Dead seagrass that washes up on shore provides important habitats for small foreshore invertebrates. Of the 144 estuaries surveyed in 2005 by the department of Primary Industries, 52 showed a net decrease in seagrass environments.

A common characteristic among marine species is the ability to inherently travel throughout their life cycle. These dispersals can depend on ocean temperature, salinity, nutrient levels and life cycle stages, and can lead to certain species, such as perciform fishes, travelling for tens to hundreds of kilometres (Leis, 2006).

Estuarine and inshore environments are major breeding grounds and development zones for the juvenile-adult phase of many species before they start dispersing (including many of the world's most important food and game fishes, such as perch, bass and salmon). As they are the starting point for species that contribute to our fisheries and marine biodiversity, the MER system should be extended to focus on these high-priority environments. As discussed, these estuarine and inshore environments are a crucial component of marine biodiversity and the carbon cycle. If they decline further, there will be devastating losses to marine ecology throughout Australia.

Biophysical Science

R4.5 [The Audit Panel recommends that funding be allocated to addressing research shortcomings . Some of the priority areas identified by the Audit were:]

The performance of the marine park system should be assessed against its primary objectives of conserving biodiversity and maintaining ecosystem integrity and function.

5

Social Science

R4.1 [The Audit Panel recommends that funding be allocated to addressing research shortcomings. Some of the priority areas identified by the Audit were:]

Well-directed work is needed to **incorporate social and economic data into decision making** in order to help all parties—taxpayers, consumers, industry participants, agencies and the wider NSW community—to **better understand the social and economic benefits and costs** of marine parks.

5

Comments on R4.1

The SCCG supports R4.1 and recommend that resources are also provided to educate the public on the zoning process of marine parks. The application of the social and economic data to management must adhere to the triple-bottom line approach of ESD to ensure the best outcome for the sustainable management of the Marine Estate, environmentally,

socially and economically.	
R4.1 will assist with Objective (c <i>ii</i>) of the <i>Marine Parks Act 1997</i> , to provide opportunities for public appreciation, understanding and enjoyment of marine parks, (where consistent with the preceding objects of the Act).	
R4.2 <i>The Audit Panel recommends that funding be allocated to addressing research shortcomings. Some of the priority areas identified by the Audit were:]</i>	
<i>Resource-use activities in all areas of the NSW Marine Estate must be estimated, and improved social-network building, public participation and educational strategies developed to enhance the management of the Marine Estate.</i>	5
R6.3.c <i>[Approaches to zoning should be re-assessed to be based upon management objects that are specifically geared to ecological and biodiversity outcomes, rather than being merely surrogacy-based, and that utilise economic and social assessments in their implementation and evaluation. This will of necessity require:]</i>	5
taking into account social and economic objectives and utilising appropriate tools	
R7 Rigorous social impact assessments are to be made a central component of the methods used to establish and manage NSW marine parks. <i>The social impact assessment framework needs to analyse, monitor and manage the intended and unintended social consequences (both positive and negative) of marine parks and any social change processes that are invoked. The ongoing evaluation of social impacts and benefits are to be reported in the same reporting cycle as environmental impacts. In particular, marine park and NSW Marine Estate planning processes should be improved immediately to allow for a more strategic and cross-disciplinary approach to considering social impacts.</i>	4
Comments on R7	
The SCCG agrees, provided these social impact assessments do not interfere with the primary objectives of the <i>Marine Parks Act 1997</i> .	
The SCCG advises that R7 should be undertaken relative to Objective (c i – ii) of the <i>Marine Parks Act 1997</i> .	
Without integrating the impact of population growth and the increasing use of the NSW Marine Estate, sustainable zoning cannot be achieved. The public should be educated on sustainable resource use to increase active participation in conservation efforts. Tools must be developed that allow for public participation.	
R7.1 specific and targeted consideration of social impacts (incorporating qualitative research techniques) <i>that is separate from (but informed by) consideration of economic impacts, with particular attention given to key groups within the community</i>	4
Comments on R7.1	
The SCCG agree, provided the considerations of social and economic impacts adhere to the triple-bottom line approach to ensure the best outcome for the environmental, social and economic sustainable management of the NSW Marine Estate.	
R7.2 Integration of improved public participation exercises with social and economic impact assessment <i>to add value to each of these processes, with each informing the other</i>	4
R7.4 incorporation of social science expertise into planning and management processes <i>to ensure social data are gathered and analysed in a meaningful and scientifically robust manner.</i>	4
R8.3 <i>In order to improve approaches to zoning, the Audit Panel recommends that:</i>	4

The **research projects that are commissioned include a high quality social impact assessment** process to that may be applied elsewhere and allow statewide benchmarking of community valuation of the NSW Marine Estate.

R11.2 The Audit Panel recommends that the NSW Government mandate better integration of land-use planning regulations with the NSW Marine Estate and marine park management as follows:]

Acknowledge the biophysical realm as having intrinsic value in NSW Marine Estate planning.

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Comments in R11.2

The SCCG suggests that the biophysical realm be acknowledged as an economical asset. A recent study has shown that Australia’s marine region provides up to \$69 billion per annum, yet only \$44 billion is acknowledged (Eadie & Hoisington, 2011). The SCCG recommends that the State (and Federal) Governments review the Marine Estate of Australia and grant it an economic value true to its financial worth to the Australian economy.

Economics

R8.4 A further research project be commissioned as a **high-quality economic-policy exercise** that follows up on the 2002–07 Greenville work and that this work be under the control of the Department of Trade and Investment, Regional Infrastructure and Services’ Chief Economist with expert oversight by economists qualified in the field.

4

Comments on R8.4

The SCCG agrees, provided the cost of continued depletion in fish stocks is included in the analysis.

Aboriginal

R10 Local Indigenous knowledge and expertise of land and sea management to be explicitly incorporated into the establishment and ongoing management of NSW marine parks and the NSW Marine Estate. To facilitate this, the Audit Panel recommends the employment of an Aboriginal Liaison Officer in each marine park, along with ongoing support of the Aboriginal Cadet Program in each marine park.

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Threats

R4.3 [The Audit Panel recommends that funding be allocated to addressing research shortcomings. Some of the priority areas identified by the Audit were:]

With research that is publicly funded, **priority should be given to projects on the potential threats to marine and estuarine biodiversity and ecological integrity within NSW waters that are considered by experts likely to be most significant.** Candidates should include all five classes of threats identified by the Natural Resource Management Ministerial Council Marine Biodiversity Decline Report (2008) and should extend to the less-direct consequences of otherwise low-impact usage.

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R4.4 Resilience and multi-stressor research is needed to better understand the response of marine ecosystems to threat combinations.

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R4.6 The NSW Government needs to ensure that complementary fisheries research is done to improve the understanding of the threat that fishing poses to the conservation of biodiversity in NSW and the environmental protected values of the Marine Estate.

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Comments on R4.6

Marine Parks are invaluable to the replenishment of fish stocks*. A review by the Marine Parks Authority on the benefits of Marine Protected Areas and related zoning considerations demonstrated:

- a) The majority of evidence provided by comparative evaluation studies indicated that sanctuary zones result in amplification in abundance and average size of many marine species, particularly those that are heavily exploited. As an example, Moreton Bay Marine Park mud crabs (*Scylla serrata*) were twice as common in sanctuary zones than in fished areas, and were also larger.
- b) Tagging work established that some of these crabs (mentioned above) “spilled over” into fished areas. Such spill over movements can lead to increased abundance adjacent to no-take zones. Fishers that experience improved fishing in these areas, often change their attitude regarding marine parks.

This evidence indicates the success of marine park sanctuary zoning to assist in biodiversity recovery and demonstrates that additional fisheries research is required to understand and manage sustainable fishing.

R4.6a expanding the scope of ongoing assessments of fish stocks to assess ecological sustainability and management of fisheries rather than just stocks (for example, data-driven assessment of effects on habitats from by-catch, trophic flow-on and ecosystem-wide impacts)

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Comments on R4.6a

Science-based trends for effort catch and by-catch disposal should be included to assess ecological sustainability and management of fish stocks.

R4.6c estimating recreational fish catches (currently estimated to equate to around 30 per cent of the commercial catch in NSW).

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R5.1 Threats to marine parks should be assessed as part of a statewide risk assessment, including any indirect effects of activities such as tourism and fishing (for example, anchoring). This risk assessment should be used to guide a similar process that is done independently for each marine park. The park-specific process would interrogate the system at a much finer scale, both spatially and temporally. The risk assessments should be used to guide management actions commensurate with the park objectives

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R5.2 Zoning and rezoning should also more explicitly and transparently consider the assessment of risks. In developing this framework, priority should also be given to determining how subsets of threats are being dealt with by the current configuration of the marine parks network as a (i) primary, or (ii) secondary, or (iii) subsidiary (i.e. much less assured and possibly only incidentally) goal for the network. Explicit detail on how current management practice addresses each potential threat can then be added to the framework and additional strategies developed where it is shown that marine parks are insufficient to address particular threats. **Management actions should be in proportion to risk and must be cost-effective.**

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Comments on R5.2

The SCCG agrees provided there is clarification on the term ‘cost-effective’

R5.4a *the development of an early detection pest-monitoring program that targets high-risk locations and pest species.* Assessment of the ability of this program to deliver early detection of marine pests (e.g. estimates of detection probabilities) should be an integral part of this program. Existing pest-response strategies must integrate tightly with the monitoring program. Within the Marine Estate, marine parks should be considered as areas that warrant additional scrutiny with regards to biosecurity

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R5.4b *that beyond the assessment of nutrient and sediment impacts in coastal waterways, a statewide survey of contaminant levels across NSW waters utilizing both bio-monitor and sediment grab approaches would provide important information* as to where ANZECC/ARMCANZ sediment-quality guidelines are exceeded, or emerging contaminants of concern are identified. This should allow for the **identification of current sources and the nomination of areas that should be targeted for remediation.** This should be accompanied by a clear and consistent approach to understanding and managing the fate and effects of contaminants (including transport and remobilisation) for the NSW Marine Estate.

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R5.6 *The management and licensing of dredging activities within the NSW Marine Estate be reviewed, consolidated and updated to require world's best practice.*

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R5.7 *A regulatory framework for better managing stormwater inputs of contamination should be provided.*

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R6.1 *Better information is needed on the ecosystem effects of fishing and the integration of this information into the annual stock assessment of commercial and recreational fishing.*

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R6.2 *Recreational fishing (including distribution of effort, catch, discards of by-catch and ecosystem impacts) must be evaluated and the results of that incorporated into marine park management.*

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Zoning

R6.3.a *[Approaches to zoning should be re-assessed to be based upon management objects that are specifically geared to ecological and biodiversity outcomes, rather than being merely surrogacy-based, and that utilise economic and social assessments in their implementation and evaluation. This will of necessity require:]*

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clarifying the role and purpose of the various types of zones currently in use

Comments on R6.3.a

The role and purpose of marine park zones needs to be clarified. Economic and social assessments should be additional considerations. The precautionary principle must be used in the management of marine parks to ensure risk to marine biodiversity is minimal and sustainable use is achievable.

The SCCG would like to reiterate the importance of retaining No Take sanctuary zones, which science has demonstrated contributes to rebuilding depleted fish stocks*.

R6.3.b *reviewing of the 1998 ANZECC approach to zoning in marine parks, which is currently based on principles of being comprehensive, adequate, and representative (CAR) and uses habitat as a surrogate for biodiversity per se*

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R6.3.d *recognising that the needs of user groups should be included in any future zoning in the context of a much expanded NSW Marine Estate. This could extend to innovation such as havens for particular forms of fishing or other specific uses. This would be facilitated by the amendments to legislation and administration suggested in R12 to R15.*

4

Comments R6.3d

<p>The SCCG supports this recommendation, however, recommend that upon this process being implemented, research on ecosystem behaviour is performed and the ecological processes are monitored on a regular basis.</p>	
<p>R8.1 <i>The Marine Parks Authority and the NSW Department of Primary Industries allocate significant resources to research that are directed at operationalising the policy use of the available high-quality analytical tools for guiding the socially optimal zoning of marine park and NSW Marine Estate areas.</i></p>	<p>5</p>
<p>R8.2 <i>In order to ensure significant conceptual progress, the work should be focused for the next three years at least on one marine park, namely the Solitary Islands Marine Park, where in 2010–11 a project trialled, among other things, Marxan applications.</i></p>	<p>4</p>
<p>Public Participation and Communication</p>	
<p>R3.2 <i>[The Audit recommends the formation of a Scientific Committee, which is independent of government agencies and established to oversee strategic research in the Marine Estate in NSW. It is further recommended that this Committee be composed of experts in the marine sciences, economics and social science with an independent chair who reports directly to the Minister(s). In its work:]</i></p>	
<p>The Committee must consult as a matter of course with the community as well as resource users in addition to direct research stakeholders. The Committee should be empowered and resourced to commission independent reviews by acknowledged international experts where it believes this would be useful in improving the science and its application to management. A particular area needing attention is a close examination of the incorporation of social and economic data into decision supporting algorithms that are used in identification of various conservation areas and the level of management that should be applied to them.</p>	<p>5</p>
<p>R5.3 <i>Greater clarity and attempts to communicate actions should be taken across the entire NSW Marine Estate to manage each threat type and the biological, social and economic justification for these actions.</i></p>	<p>5</p>
<p>R7.3 <i>the conduct of ongoing education for sustainability relevant to the marine park and wider Marine Estate</i></p>	<p>5</p>
<p>R8.5 <i>Public participation and education for sustainability protocols be developed for marine parks along with sufficient resourcing for these processes to be undertaken effectively.</i></p>	<p>4</p>
<p>R11.1 <i>[The Audit Panel recommends that the NSW Government mandate better integration of land-use planning regulations with the NSW Marine Estate and marine park management as follows:]</i></p>	<p>5</p>
<p>Overhaul and standardise the structure and process for stakeholder and public participation with clear principles that correspond with the objectives of the Marine Parks Act 1997 (NSW) and relevant management strategies.</p>	<p>5</p>

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