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C/o Coast and Marine Conservation Branch
Department of Environment and Heritage

April 14th 2010

Hon. Paul Caica MP
Minister for Environment and Conservation
GPO Box 1047
ADELAIDE SA 5001

Dear Minister Caica,

Firstly I would like to offer my congratulations on your appointment to the role of Minister for the Environment and Conservation. The Scientific Working Group for Marine Planning and Marine Protected Areas (SWG for short) has a long history of working with both the Department and your predecessors in this role and we are keen to establish a strong working relationship with you as we move forward.

By way of introduction to myself as Chair of the SWG, I have held this position for the last five years having originally been appointed to the role by John Hill. I have a long career in Marine Science including 11 years at the University of Adelaide and then having worked as Chief Scientist (Aquatic Sciences) with SARDI from 2000–2004, as Director Research and Development at SARDI (2004–2005) and more recently as an independent scientist working across a range of roles (including as Chair of the SA Fisheries Research Advisory Board and a Member of the Natural Resource Management Council). I currently hold Affiliate and Adjunct Positions as Professor with both the University of Adelaide and with Flinders University.

During my time as Chair of the SWG I have worked hard to ensure that we provide relevant, timely and accurate advice to the Minister as well as to provide strong support to the Department in reviewing and advising on the science underpinning the development of Marine Parks in South Australia.

The SWG is very well supported by members with wide ranging experience covering Marine Conservation and Management, Fisheries Management, Aquaculture Management, Marine Ecology, Marine Biology, Oceanography and Natural Resource Management. I am satisfied that this range of expertise provides the necessary knowledge to provide strong and appropriate advice to all levels of Government in relation to the development of the SA Representative System of Marine Parks. This includes a strong appreciation of the needs of key stakeholders having worked with the fishing and aquaculture industries and the conservation sector over many years.

A key achievement of the SWG was to support the development of a set of *Design Principles* which were used by Government to identify and establish the outer boundaries for the 19 Marine Parks (declared in January 2009). Since then we have worked to support Government in developing Design Principles to support the development of zoning arrangements within parks. The SWG is developing a process for evaluating alternative zoning arrangements as a basis for informing the choice of arrangements through advice to the Minister and to community groups (e.g. the Local Advisory Groups – LAGS) and other key stakeholders.

A key issue that has arisen over the last 12 months relates to the question “**How big do sanctuary zones need to be?**”

The difficulty in addressing this point is that we need to consider not just one issue (Adequacy) but the full suite of Design Principles including all other Biophysical and Socio-Economic

principles. In essence while some of these principles can be used in directing the design of zoning arrangements (e.g. the need to develop a Comprehensive and Representative system) others (including Adequacy) are more related to how we measure the success of any given proposal.

The SWG has considered this over a number of meetings and in the process has reviewed a substantial body of literature from other jurisdictions nationally and internationally. We offer the following advice:

1. Providing we are able to locate sanctuary zones in areas that individually make a substantial contribution to biodiversity conservation and management we would anticipate that sanctuary areas would need to cover around 25–30% of the area currently within outer boundaries of the Parks. Assuming that this level of protection is to be achieved, and given that 44.2% of State waters are within the outer boundaries of parks, then this would effectively provide a high level of protection for around 10–13% of SA's marine environments which is consistent with national and international advice on best practice. Furthermore, given that not all areas that could be incorporated in Sanctuary Zones are currently used for fishing or aquaculture then this level of protection should be achievable within current policy commitments (relating to displaced effort).
2. Irrespective of the percent area, the minimum linear dimensions of sanctuary zones should ideally be 7–10 km in any direction. Experience has shown that smaller zones are much less effective due to external influences spilling over boundaries into the sanctuary zones.
3. Sanctuary zones should not be heavily fragmented. It is better to have a few larger zones than many smaller zones (both for management and to ensure effective ecological function).
4. Sanctuary areas should be buffered with Habitat Protection zones that are at least 5–7 km wide surrounding them although in some cases (e.g. where they abut the coastline) alternative arrangements may be appropriate.

Please note that the SWG advice is **not intended to dictate a target area** for inclusion in sanctuary zones. Rather, the advice is intended to put some scale on what **experience from other jurisdictions (national and international) has concluded**.

In short, if we are to achieve a robust system of marine parks that meet internationally recognised criteria (including comprehensive, adequate and representative), it is unlikely to be achieved with a lesser commitment.

We are aware that LAGs are seeking advice on how to measure adequacy in relation to the sanctuary areas and this includes requesting advice on a target value (e.g. 30%) for Sanctuary Zones. The SWG recognises that providing this advice may facilitate the working group process, giving more certainty on outcomes to all stakeholders, any zoning plan should still be evaluated against the full suite of Design Principles and the decision of whether to seek further work in developing options or to accept a plan should not be based on whether they meet this single measure but rather by how well the plan meets the full suite of Design Principles.

Detailed below is some advice from the SWG about whether the Department should publicise an expectation that we are likely to need 30% of the area inside parks as sanctuary zones (ie 13% across all State waters).

- Benefits of publicising an expectation of 30% sanctuary zones include:
 - the establishment of clear expectations for zoning at the commencement of the process;
 - providing a realistic conservation target that is likely to be supported by the majority of the public; and

- the Government being seen to provide relevant, empowering assistance to support the development of zoning proposals.
- Risks associated with publicising an expectation of 30% sanctuary zones include:
 - dissatisfaction from the conservation sector, which is seeking 30% of State's waters to be highly protected (which would require approximately 70% sanctuary zone coverage in each park);
 - a perception promoted by the fishing industry that the targets are inconsistent with commitments to minimise economic impact; and
 - 30% may not be sufficient to achieve the full suite of conservation objectives consistent with the other Design Principles and this would lead to further dissatisfaction by some stakeholders.

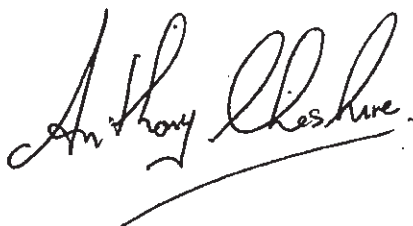
On balance the SWG would advise that you and officers of the Department could use the figures shown above to provide guidance to stakeholders about what to expect but should be very clear and qualify all comments by pointing out that this is based on experience from elsewhere and that in SA we need to address the full suite of Design Principles.

In summary:

1. The SWG is keen to continue work to support you in furthering the Marine Parks programme in South Australia.
2. I believe that you can feel confident that we have both the scientific "grunt" to push the work forward and to robustly defend recommendations that are given based on the best available knowledge and our collective experience working with the various stakeholders (including the commercial, recreational and conservation sectors).
3. We appreciate that your prior experience in both the fisheries and science portfolio areas is highly complementary to this and that you already understand the importance of "good science" as a necessary underpinning for good management in any natural resource context.
4. The SWG would be very pleased to meet and discuss our programme with you as we move it forward.
5. As Chair of the SWG I would be available to brief you personally on any of these issues.

We all look forward to working with you into the future.

Yours sincerely,



Professor Anthony Cheshire

CHAIR, SCIENTIFIC WORKING GROUP