

Choosing Boundaries to Marine Protected Areas and Zoning the MPAs for Restricted Use and Management

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In keeping with international and national commitments, the South Australian Government has established a carefully designed network of 19 multi-use MPAs. A key milestone in the process was the proclamation of the outer boundaries of this network of MPAs. These boundaries were developed by the SA Government with assistance and advice from a range of State Government agencies, ministerial advisory groups and scientific experts. The boundaries were selected through a rigorous process of technical assessment and were refined through consultation across Government. The boundaries represent the outcome of applying chosen Design Principles to build a robust network that meets the objectives of the Marine Parks Act 2007 and reflect world's best practice in marine parks design.

The reasons for having MPAs are discussed and a pragmatic process to have them as legally binding protection areas for marine environments is explained.

South Australia's State waters cover an area of 60,282 km² and comprise water out to three nautical miles (~5 km) from the coast line including the gulfs and a number of offshore islands. The boundaries for the marine parks network cover a total area of 27, 526 km², approximately 44% of South Australia's waters.

Fourteen biophysical design principles were adopted by the South Australian Department for Environment and Heritage to guide the development of South Australia's marine park boundaries:

BP1. The Precautionary or anticipatory approach	BP8. International or national importance
BP2. Comprehensiveness	BP9. Uniqueness
BP3. Representativeness	BP10. Biological productivity

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BP4. Adequacy	BP11. Vulnerability
BP5. Complementarity	BP12. Biogeographical significance
BP6. Resilience	BP13. Naturalness
BP7. Ecological importance	BP14. Connectivity and linkages

The first four are the primary biophysical principles that are over-arching principles that guide the boundary network as a whole. The secondary biophysical design principles serve to focus the program on key or irreplaceable areas within regions that should also be included within the system. They also help in the preferential nomination of areas where a number of similar locations all contribute effectively to a representative system. The last seven are the community design principles which recognise varied users of the marine environment and seek to align marine parks so that those uses continue and are sustainable in the future.

Now that the boundaries have been declared by the Government the process of zoning the MPAs is taking place. The zones are for: General Managed Use; Habitat Protection; Sanctuary Use; Restricted Access; and Special Purpose Areas. The same 14 Design Principles will be used but others may be invoked to assist with demonstrating a scientific approach to zoning, e.g. buffering or having more restrictive zones within less restrictive zones; complementarity or considering surrounding terrestrial and marine uses; commitment to a monitoring and evaluation process, cost-effective and co-operative operation of parks, and developing indicators to simplify monitoring; and a principle seeking to meet international obligations.

There have been some problems from community groups concerning the boundaries even though community consultations throughout the State took place. It is emphasised how important these community discussions are and that everyone understands the implications, restrictions and values of the MPAs.

The selection of the South Australian marine parks has taken five years of scientific deliberations, community, government, institutional and international experts' participation. Lessons for East Asian Seas can be learned from these efforts.