

sustainable settlement

green infrastructure

Coastal Landscapes



Australian Institute
of Landscape Architects

National Policy Statement

Australia is a coastal nation – more than 85% of Australians live within 50km of the coast, and our coastal environments are fundamentally important to the Australian lifestyle, identity and economy.

These much-loved landscapes are also among Australia's most vulnerable ecosystems. Our unique, dynamic coastal environments are subject to ever-increasing pressures from human activity – including population growth, resource exploitation, changing land-use & development patterns and the impacts of climate change. The range and complexity of legislation and planning instruments governing coastal area land management (at local, state and national levels) further exacerbates the challenges of sustainable coastal development.

COASTAL RESOURCES

Coastal resources encompass the full spectrum of ecological, cultural, economic, social, recreational & aesthetic values of our coastal and ocean ecosystems – and all should be protected and nurtured for the benefit of existing and future communities.

The natural ecological processes of healthy coastal landscape systems generate a range of vital ecosystem services which directly and indirectly benefit human communities. These 'free' goods and services include the provision of food, clean air and water, habitat, biodiversity, material resources, climate regulation, opportunities for recreation, industry and economic development.

As population pressures increase, demand and competition for these naturally regenerative services intensifies – and conflicts arise between the essentially consumptive nature of development and the capacity of the dynamic coastal asset base to continue to support such development.

At a practical level, addressing such conflicts requires a better understanding of how particular development practices impact on coastal ecosystem services provisioning – including flow-on effects on the social, economic and environmental resilience of our cities and regions. This knowledge can then be used to devise coastal development strategies which aim to both protect and enhance ecosystem functioning. Intelligent design can play a key role in integrating such strategies within the built and natural environment in a way which increases community understanding, supports cultural identity and protects our quality of life.

The AILA urgently advises Australian governments at all levels to adopt integrated design-based approaches for coastal development which aim to move beyond merely minimising damage to existing ecosystems – and which seek to pro actively maximise opportunities for the enhancement and regeneration of natural resources.

INDUSTRY GROWTH

Australia's coastal and marine-related industries are strong, and continue to grow. They include oil and gas exploration and extraction, tourism, fishing, boat building, shipping, ports and numerous others. Our coastal environments are also central to the emergence of key industry growth areas such as desalination, carbon capture, bio-prospecting, seabed mining and tidal power. All of these industries have impacts on coastal resources, many of which are potentially negative, often significant and/or poorly understood.

Australia's top four ocean industries (energy, tourism, food and recreation) generate more than \$48 billion every year and our international maritime trade is worth approximately \$249 billion annually. In terms of generating national wealth, the contribution of coastal and marine-based industries is now roughly similar to that of the agriculture sector – the traditional cornerstone of the Australian economy.

It is clearly in the national interest to understand and sustainably protect the capacity of these precious coastal resources to regenerate and continue to provide significant economic return.

Design has a central role to play here, and the key challenge is how we can develop design-based approaches to coastal settlement which deliver sustainable outcomes not only in terms of industry stability, but also in relation to long-term community viability and environmental resilience. This requires a deeper understanding of a broader range of values, including the ecosystem services provided by the natural environments within which communities are situated, and which support their physical, social and spiritual well-being.

HUMAN SETTLEMENT

There are many challenges inherent in developing Australia's coastal and associated marine environments in a more sustainable manner. Not least of these is our relatively poor understanding of the ocean's complex environmental settings and the drivers of pattern and change in its ecological communities, including coastal ecosystems. The impacts of climate change – rising sea levels, rising ocean and air temperatures, ocean acidification and extreme weather events – are amplified by underlying sustainability pressures such as rapid population growth, resource depletion, environmental degradation & biodiversity loss.

Patterns of growth in industry, community development and innovation arising from these challenges will also have implications for coastal settlement locations and typologies. Opportunities for new marine biotechnology industries and the forecast shift of agriculture to the wetter north, for example, are issues of central importance to Australia's future growth, safety, prosperity and well being.

Key Challenges & Opportunities for Coastal Development:

- Implementing truly integrated coastal zone management, aligned with urban settlement development.
- Balancing competing coastal pressures within & between social, cultural, natural & economic resource spheres and across associated landscape scales.
- Gathering, disseminating and responding to data and information on our coastal resources locally, regionally and nationally.
- Providing evidence-based systems to value, measure and anticipate the state and trajectory of our coastal environments, and research to help resolve conflicting pressures arising in coastal areas.
- Adapting to climate change – assessing coastal vulnerabilities and impacts, and designing responses appropriate to local spatial & temporal context.
- Developing sustainable coastal industries across relevant spatial & temporal scales
- Planning our sustainable coastal future, as part of a national sustainable settlement strategy.

Key Guidelines for Coastal Development Planning & Management Processes:

- Coastal development should be planned, regulated and managed to pro actively ensure the preservation and ongoing enhancement of existing and future coastal resources.
- Coastal resources encompass the ecological, cultural, economic, social, recreational & aesthetic values of our coastal and ocean ecosystems – and all should be protected and managed in an integrated manner for the benefit of existing and future communities.
- Coastal zones or 'zones of influence' should be adequately defined and addressed within coastal development planning and management processes.
- Where commercial interests and economic potential exist, only development which supports and enhances ongoing ecosystem functioning should be encouraged.
- Development should in all cases be consistent with sound land and water management practices, recognizing the extremely dynamic biological, ecological and geomorphological processes that shape and influence our local and regional coastal areas.

Key Recommendations - increased government, community and industry support for:

- National coastal information system for environmental reporting – integrated with state and local government strategic planning legislation and management instruments.
- Frameworks, guidelines & tools for integrated coastal zone management.
- Guidelines for integrated coastal industry development and settlement planning which facilitate socially, economically and environmentally sustainable outcomes.
- Design-based initiatives enabling governments, industry and communities to work together to improve sustainability and climate adaptation outcomes in coastal areas.

This Policy statement is part of the AILA's Sustainable Settlement suite of Policy Statements on Australian Landscape Architecture, the profession committed to the creation of meaningful and enjoyable outdoor places and to the sustainable management of our built and natural environment.

More details on AILA National Policy Statements: www.aila.org.au/policies

All queries on National Policy should be directed to the AILA's Chief Executive Officer.

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Ph: (02) 6248 9970,

Email: admin@aila.org.au

www.aila.org.au

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