

sustainable settlement

green infrastructure

WATER



Australian Institute
of Landscape Architects

National Policy Statement

Water is one of Australia's most precious natural resources. Healthy and consistent water supply is essential for all life.

The Australian Institute of Landscape Architects (AILA) advocates an integrated, environmentally sensitive approach to the management of all our urban and regional waterways*, with emphasis on their conservation as a fundamental resource for human life and environmental health.

The AILA supports the goals and objectives of the National Water Commission in driving progress towards the sustainable management and use of Australia's water resources under the National Water Initiative blueprint for water reform.

In addition, the AILA promotes the key role of landscape planning processes in the design and management of waterways, water supply and distribution networks across myriad landscape contexts. This includes water sensitive urban design (WSUD) strategies as a core component of urban development, green infrastructure planning, and landscape management.

“Think Catchment, Act Corridor”

For regional waterways and catchment areas, it is necessary to adopt responsible management practices, sensitive to the nature of Australian soils, climate, geology, biodiversity and vegetation patterns.

Effective planning and management of urban waterways is best achieved under the control of a single agency, or joint agency, responsible for the entire corridor and its adjoining open space. This agency should be structured & funded in a manner that enables it to draw upon the range of professional expertise required to address the complexities of waterway management. The agency should be tasked to deal holistically with conservation, recreation, planning and engineering factors in an integrated manner, ideally as part of a settlement-wide green infrastructure strategy.

The Role of Design

The AILA advocates increased government recognition & support for the crucial role of design in enabling meaningful environmental, social, and economic outcomes for water management projects across all landscape contexts from urban to wilderness.

Water sensitive design should not be an 'add-on', but an integral component of all interventions in the natural or built environment.

Water sensitive design considers the overall impact of any given project to the water cycle. Beyond merely reducing the water 'costs' associated with vegetation establishment and maintenance, intelligent design strategies can play a key role in delivering low to zero water-mile outcomes via return to source of used water within site, minimal interruption of precipitation, development of self-sufficiency through capture and storage, and reduction of reliance on reticulated potable water.

* The term 'waterways' encompasses all rivers, streams, lakes, weirs, marshes, swamps and other permanent or seasonal water bodies, including wetlands.

Water Sensitive Urban Design (WSUD)

Water-sensitive urban design involves the integration of urban planning with the water cycle, applying planning, design and management approaches which harmonize with and complement natural hydrological and ecological systems and processes.

Through the use of integrated design techniques, WSUD strategies seek to move beyond merely addressing the requirements of public health and sanitation, to encompass a broader range of social, economic and environmental objectives including:

- Minimising negative impacts on existing ecological processes and systems
- Minimising negative impacts on natural hydrologic processes of catchments
- Protecting and enhancing surface and ground water quality
- Minimising demand on reticulated potable water supply systems - e.g. incorporating fit-for-purpose/ multiple-use options into supply and distribution planning
- Minimising pollution & improving quality of water discharges to the natural environment
- Incorporating collection, treatment and re-use of stormwater runoff in design solutions
- Reducing runoff and peak flows from urban development
- Minimizing wastewater generation - including appropriate treatment/discharge/re-use of effluent
- Increasing social and recreational values in urban areas through integrated green infrastructure that addresses a wide range of objectives.
- Adding value while minimising development costs (e.g. drainage infrastructure costs)
- Acknowledging the link between water consumption and broader social, economic & community resource issues
- Integrating management practices within and between institutions responsible for waterway and open space management
- Providing strategies that fundamentally integrate factors previously regarded as separate aspects of urban water management (e.g. stormwater harvesting enables recycling and can reduce peak flows and related erosion)
- Taking advantage of increased property market interest in environmentally responsible development

Rural & Regional Waterways & Wetlands

In areas where land use and management has not respected natural processes, the legacy includes erosion, soil degradation, salination, and the depletion of natural flood retardation basins and water recharge areas.

There is currently a significant shortfall in adequate planning and decision making at local, regional and national scale to address this problem. Baseline assessment of Australia's water resources (Australian Water Resources 2005) found that at present only 18% of surface water management areas, and 33% of groundwater management units have either a draft or final management plan in place. It also found that integrated planning and management of water resources is the exception rather than the rule - despite the fact that in many areas of Australia surface and groundwater resources are intrinsically linked.

Support for National Water Initiative

In response to the above findings, The AILA calls for urgent and increased Government action to target specific objectives of the National Water Initiative, including:

- Statutory provision for environmental and other public benefit outcomes, and improved environmental practices (Objective iii)
- Complete the return of all currently over-allocated or overused systems to environmentally-sustainable levels of extraction (Objective iv)
- Water accounting which is able to meet the information needs of different water systems in respect to planning, monitoring, trading, environmental management and on-farm management (Objective vii)
- Policy settings which facilitate water use efficiency and innovation in urban and rural areas (Objective viii)
- Recognition of the connectivity between surface and groundwater resources and connected systems so they can be managed as a single resource (Objective x)

The term 'green infrastructure' describes the network of natural landscape assets which underpin the economic, socio-cultural and environmental functionality of our cities and towns – i.e. the green spaces and water systems which intersperse, connect and provide vital life support for humans and other species within our urban environments.

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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