

THIS IS NOT AN OFFICIAL GAZETTED COPY OF THE GOVERNMENT GAZETTE
GAZETTED COPIES CAN BE OBTAINED FROM STATE LAW PUBLISHER
GAZETAL DATE: TUESDAY 10 JUNE 2003, SPECIAL GAZETTE NO.90
THIS COPY IS A REFERENCE DOCUMENT AND IN INSTANCES OF DISPUTE OR
LITIGATION THE PUBLISHED TEXT MUST BE USED

WESTERN AUSTRALIAN PLANNING
COMMISSION

STATEMENT OF PLANNING POLICY No. 2

**ENVIRONMENT AND NATURAL
RESOURCES POLICY**

PREPARED UNDER SECTION 5AA OF THE TOWN
PLANNING AND DEVELOPMENT ACT 1928

CONTENTS

- 1. CITATION**
- 2. INTRODUCTION AND BACKGROUND**
- 3. APPLICATION OF THE POLICY**
- 4. OBJECTIVES**
- 5. POLICY MEASURES**
 - 5.1 General Measures
 - 5.2 Water Resources
 - 5.3 Air Quality
 - 5.4 Soil and Land Quality
 - 5.5 Biodiversity
 - 5.6 Agricultural Land and Rangelands
 - 5.7 Minerals, Petroleum and Basic Raw Material Resources
 - 5.8 Marine Resources and Aquaculture
 - 5.9 Landscape
 - 5.10 Greenhouse Gas Emissions and Energy Efficiency
- 6. IMPLEMENTATION**
- 7. REFERENCES**

WESTERN AUSTRALIAN PLANNING COMMISSION

STATEMENT OF PLANNING POLICY No. 2

ENVIRONMENT AND NATURAL RESOURCES POLICY**PREPARED UNDER SECTION 5AA OF THE TOWN PLANNING AND
DEVELOPMENT ACT 1928****1. CITATION**

This a Statement of Planning Policy made under Section 5AA of the *Town Planning and Development Act 1928*. This policy may be cited as the Statement of Planning Policy: Environment and Natural Resources Policy.

2. INTRODUCTION AND BACKGROUND

Western Australia is one of the most biologically diverse regions in the world, home to a broad range of ecological communities and species, and natural landscapes. The State's vast areas encompass rich and extensive agricultural, pastoral, marine and mineral resources. The protection and wise management of the environment and natural resources of the State are of paramount importance if we are to maintain our lifestyle now and into the future. This requires acknowledgement of the intrinsic value of the environment, as well as an understanding of the importance of ecological processes in the production and maintenance of healthy soils, clean air and water: the natural resource base which supports life and our lifestyle. It is therefore essential to resolve land use conflicts between use and protection of natural resources, having consideration of potential impacts on the environment, as well as those on community lifestyle and the economy.

The concept of sustainability in terms of our natural environment and resources is established in the *State Planning Strategy* (1997), which is directed towards ensuring a balance between economic growth and the conservation and enhancement of our natural environment in order to provide a better quality of life for the present and into the future. The concept of sustainability is further refined in the draft *Western Australian State Sustainability Strategy* (2002) as meeting the needs of current and future generations through simultaneous environmental, social and economic improvement.

The Sustainability Strategy vision for Western Australia in terms of the sustainable use of natural resources is: 'Western Australia's vast landscape and seascape, intricate web of biodiversity and other natural resources are managed and used sustainably for the common good and the community is involved in management and planning processes that are transparent and visionary'. This focus on sustainability reflects national agreements such as the *National Strategy for Ecologically Sustainable Development* (1992) and the *National Strategy for the Conservation of Australia's Biological Diversity* (1996). As well, there are global obligations to protect natural resources through international treaties.

The key to sustainability in the planning sector is integrating ecological, economic and social considerations into decision-making. This policy sets out the key principles of how this can be done with environment and natural resource issues.

In order to meet the objectives of sustainability, there is a clear need to protect our land, air and water, vital resources that support our diverse range of flora, fauna and ecosystems, from unacceptable levels of loss or degradation. This involves the maintenance of vital ecological processes and systems on which life depends, and an understanding of how these complex systems, our natural resources, interact within Western Australia.

The *Environment Western Australia 1998: State of the Environment Report* (1998) and subsequent updates describe the condition of the environment and natural resource use sectors, including associated pressures. The report prioritises specific environmental issues in terms of environmental status and proposes responses to these, including the identification of environmental indicators for each of the important environmental issues.

The draft *Western Australian State Sustainability Strategy* (2002) reaffirms the proposals of the *Government Framework to Assist in Achieving Sustainable Natural Resource Management in Western Australia* (1999) in the need for an integrated and co-ordinated approach to the management of natural resources in the State. It proposes a framework of principles, visions and actions to develop effective partnerships between all stakeholders including the community, industry, and local government. It also recognises that local government and State government statutory planning powers can be used to implement natural resource and environmental issues. The Western Australian Planning Commission (WAPC) acknowledges the role given to Regional Groups in the Cabinet endorsed Natural Resource Management Framework, and is committed to assisting these groups to achieve government policy objectives.

Careful assessment will be required to resolve conflicts between land use and protection of natural resources, giving consideration to potential impacts on the environment, community lifestyle preferences, and economic values. This requires an understanding of the competing pressures of development and environmental protection, together with the economics of sustainable land use and management practices,

advances in technology, and the priorities of the community. Land use planning decisions will often seek to minimise trade-offs in order to achieve the best outcome for the community, the environment and the economy.

Integrated land use planning and management is a practical way to achieve effective and efficient use of the natural resources of the State. There is a clear and explicit need to incorporate environmental considerations and resource management into the planning process to ensure that decisions are made in the context of potential impacts on the environment and our natural resources. In the same way, it is possible for more use to be made of the planning system in managing these issues. It is possible to achieve land use change and development that have positive environmental outcomes or that reduce the degree of negative impact on the environment.

The Environment and Natural Resources (ENR) policy is a broad, sector issue policy under *Statement of Planning Policy No. 8: State Planning Framework Policy*. It defines the principles and considerations that represent good and responsible planning in terms of environment and natural resource issues within the framework of the State Planning Strategy. The ENR policy will be supplemented by more detailed planning policies on particular natural resources matters that require additional information and guidance. These supplementary policies may also be Statements of Planning Policy and should be implemented in conjunction with this policy.

3. APPLICATION OF THE POLICY

The policy applies throughout Western Australia.

4. OBJECTIVES

The objectives of this policy are:

- β to integrate environment and natural resource management with broader land use planning and decision-making;
- β to protect, conserve and enhance the natural environment; and
- β to promote and assist in the wise and sustainable use and management of natural resources.

5. POLICY MEASURES

The above objectives provide the context for the policy measures which are set out below under the following headings:

- β General Measures
- β Water Resources
- β Air Quality
- β Soil and Land Quality
- β Biodiversity
- β Agricultural Land and Rangelands
- β Minerals, Petroleum and Basic Raw Materials
- β Marine Resources and Aquaculture
- β Landscapes
- β Greenhouse Gas Emissions and Energy Efficiency

5.1 General Measures

The implementation of planning decisions can have an impact on the environment and other natural resources. The following policy measures recognise the significance of natural resources, and should be read in conjunction with the more specific statements on aspects of natural resources that follow.

Planning strategies, schemes and decision-making should:

- (i) Avoid development that may result in unacceptable environmental damage.
- (ii) Actively seek opportunities for improved environmental outcomes including support for development which provides for environmental restoration or enhancement.
- (iii) Take account of the availability and condition of natural resources, based on best available information at the time.
- (iv) Protect significant natural, indigenous and cultural features, including sites and features significant as habitats and for their floral, cultural, built, archaeological, ethnographic, geological, geomorphological, visual or wilderness values.
- (v) Take into account the potential for economic, environmental and social (including cultural) effects on natural resources.

- (vi) Recognise that certain natural resources, including biological resources, are restricted to particular areas and that these geographical areas or land types may need to be identified accordingly and appropriate provision made to protect the areas for the use of those resources.
- (vii) Take account of the potential for on-site and off-site impacts of land use on the environment, natural resources and natural systems¹.
- (viii) Safeguard and enhance areas of environmental significance on the coast including the marine environment.
- (ix) Ensure use and development on or adjacent to the coast is compatible with its future sustainable use for conservation, recreation and tourism in appropriate areas.
- (x) Support conservation, protection and management of native remnant vegetation where possible, to enhance soil and land quality, water quality, biodiversity, fauna habitat, landscape, amenity values and ecosystem function.
- (xi) Consider alternatives to land acquisition for conservation and landscape protection where limited or no public access is required.
- (xii) Take into account the potential for impacts from changes in climate and weather on human activities and cultural heritage including coastal and urban communities, natural systems and water resources.
- (xiii) Consider any relevant accredited Natural Resource Management Regional Strategy, or catchment management strategies prepared by catchment groups and endorsed by State government agencies, with a view to integrating implementation of appropriate and relevant parts through town planning schemes and assessment of developments.

5.2 Water Resources

Water is fundamental to human life and the environment. The careful management of water resources, both in terms of quantity and quality, is therefore essential to support natural ecosystems as well as future growth and development. This includes water catchments, waterways, wetlands, estuaries and the marine environment.

The State *Water Quality Management Strategy for Western Australia* (2001) (SWQMS) is the State framework for implementation of the *National Water Quality Management Strategy* (1994) (NWQMS). The prime objective of the NWQMS is 'to achieve sustainable use of the nation's water resources by protecting and enhancing their quality while maintaining economic and social development.' This ENR Policy is thus consistent with the guiding principles of the NWQMS and the SWQMS, as well as the *Wetlands Conservation Policy for WA* (1997), which aims to prevent further loss or degradation of valuable wetlands in Western Australia.

Planning strategies, schemes and decision making should:

- (i) Consider mechanisms to protect, manage, conserve and enhance:
 - a. wetlands of importance, Ramsar wetlands and wetlands identified in any relevant *Environmental Protection Policy*;
 - b. waterways;
 - c. estuaries;
 - d. marine environments;
 - e. gazetted public drinking water source areas; and
 - f. other water sources which sustain catchments and identified environmental values.
- (ii) Take account of the availability of water resources to ensure maintenance of water quality and quantity for existing and future environmental and human uses.
- (iii) Encourage urban water management through water sensitive design approaches that better manage stormwater quality and quantity; that reduce the impact of stormwater flows to streams, wetlands and coastal waters; and that control or remove pollutants and nutrients so as to improve water quality, retain habitats, conserve water and provide for recreational opportunities and conservation functions through multiple use drainage systems.
- (iv) Ensure the provision of adequate setbacks between development and the foreshores of wetlands, waterways, estuaries and the coast, in order to maintain or improve the ecological and physical function of water bodies. Such setbacks will aim to maintain the natural drainage function, protect wildlife habitats and landscape values, lessen erosion of banks and verges, and facilitate filtration of sediment and waste associated with surface run-off from adjacent land uses, which may include retention or replacement of riparian vegetation.

¹ This includes threatening processes, which are processes which threaten or may threaten the survival, abundance or evolutionary development of a native species or ecological community. The Commonwealth's *Environmental Protection and Biodiversity Conservation Act 1999* provides for the identification and listing of key threatening processes such as dieback, land clearance or predation by feral cats.

- (v) Consider flood risk by identifying floodways and land affected by 1 in 100 year flood events and avoid intensifying the potential for flooding as a result of inappropriately located land uses and development.
- (vi) Consider the risks associated with nuisance or disease vector insects, in particular mosquitoes and midges, and ensure appropriate measures are applied to manage potential conflicts with community amenity and health, and environmental values.

5.3 Air Quality

Air quality is a local, national and global concern. At the global scale, the key natural resource management issues are the emission of greenhouse gases, which has been linked to climatic changes, primarily in temperature and rainfall, and the depletion of the stratospheric ozone layer that affects the amount of ultraviolet light reaching the Earth.

Regional and local air quality problems are primarily the result of industrial and domestic emissions, vehicle use and land use practices such as agriculture and forestry. In Western Australia the key regional and local air quality issues are photochemical smog and haze from particulates (solid and liquid), sulphur dioxide, dust and air toxics.

Western Australia has adopted the *National Environmental Protection Measure for Ambient Air Quality* (1998) which sets air quality standards for each major air pollutant. The *Air Quality Management Plan for Perth* (2000) proposes to address issues of air quality in Perth through a number of strategies including better integration of land use and transport planning.

Planning strategies, schemes and decision-making should:

- (i) Promote urban development patterns, densities and form that support reduced travel demand, increased availability and access to public transport and that encourage walking and cycling.
- (ii) Have regard to the potential for conflict between sensitive land uses and activities with air emission impacts.
- (iii) Have regard to the relevant requirements of the *National Environmental Protection Measure for Ambient Air Quality* (1998), the *Environmental Protection (Kwinana) (Atmospheric Waste) Policy* (1992), the *Environmental Protection (Goldfields residential areas)(sulphur dioxide) Policy* (1992) and *Statement of Planning Policy No. 4: State Industrial Buffer Policy*.

5.4 Soil and Land Quality

Land is an essential physical and economic resource, which is fundamental to the existence of flora and fauna and is essential to maintaining biodiversity. Changes in the environment, such as extensive land clearing for agriculture and settlement, and intensification of land use, can have a profound effect on land quality by removing its protective cover and creating the potential for erosion, salinity and loss of soil and water quality. Land is used for a variety of purposes. Careful consideration is necessary to ensure land is allocated to appropriate uses that minimise land degradation and resource use conflicts. Specific consideration should be given to land capability and suitability, and exploration of different options for use when decisions are made about the future use and development of land. Soil contamination, wind and water erosion, acidity, loss of soil cover and biodiversity, water logging and salinity are particular issues requiring attention.

The *Report of the Salinity Taskforce* (2001) and the *Government Response to the Salinity Taskforce Report: Salinity: a new balance* (2002) set out a strategy to manage salinity and outline the management options and tools that are available to landholders across the south-west agricultural zone. It highlights the need for urgent and large-scale intervention on the hydrological system if the Strategy's goals are to be achieved. This policy is consistent with the goals and strategic approach of the Salinity Taskforce.

Planning strategies, schemes and decision-making should:

- (i) Have regard to the capability of land to accommodate different land uses and developments, including erosion hazard, the absorptive capacity of soils, slope stability, potential for variable settlement or subsidence, active fault lines and dune migration.
- (ii) Recognise and consider land that is degraded or contaminated, or has the potential to become so, and facilitate its rehabilitation or remediation for appropriate future use.
- (iii) Ensure that land uses that may result in land contamination such as storage of chemicals, waste, other toxic materials or liquid fuel are not permitted unless it can be demonstrated that the proposed activities will not result in contamination of land or adverse effects on future land use.
- (iv) Identify existing and potential areas affected by salinity, acid sulphate soils or other severe land degradation problems and, where appropriate, facilitate measures such as promoting vegetation retention, replanting in groundwater recharge areas, and prevention of inappropriate development, in order to reduce impacts on land, buildings and infrastructure.

5.5 Biodiversity

Biodiversity describes the variability among living organisms from all sources (including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part) and includes diversity within and between species and the diversity of ecosystems.²

Biological diversity underpins ecological processes essential for maintenance of marine and estuarine quality, soil fertility and clean, fresh water and air. Biodiversity is also fundamental to the quality and character of the landscape and in providing recreational opportunities, aesthetic value and cultural identity. Planning should recognise the State's biodiversity in considering changes of land use, including consideration of any future potential value, such as for medicinal purposes or as a source of genetic material.

The protection and enhancement of biodiversity is guided by the *National Strategy for the Conservation of Australia's Biological Diversity* (1996) and the *National Objectives and Targets for Biodiversity Conservation 2001-05*. There are also a number of statutory and non-statutory mechanisms designed to protect, manage and conserve areas identified as of high State, regional or local biodiversity value for Western Australia.

Planning strategies, schemes and decision-making should:

- (i) Consider mechanisms to protect areas of high biodiversity and/or conservation value, including:
 - a. land vested in the Conservation Commission as national park, nature reserve, conservation park or other reserve, and land acquired and managed by the Department of Conservation and Land Management (CALM) pending formal reservation;
 - b. land and waters vested in the Marine Parks and Reserves Authority as marine park, marine nature reserve or marine management area, and areas identified in the *Report of the Marine Parks and Reserves Selection Working Group*;
 - c. land identified as a Biosphere Reserve under the UNESCO Man and Biosphere program;
 - d. land containing Threatened Flora or Threatened Ecological Communities (CALM database) or that which is habitat to Threatened Fauna;
 - e. regionally significant vegetation within the Swan Coastal Plain area of the Perth Metropolitan Region as identified in *Bush Forever* (2000);
 - f. areas formally recognised as having significance for conservation or biodiversity values by the State Government as identified in management plans under the *Conservation and Land Management Act* (1984), the *Regional Forest Agreement* (1999), regional planning strategies, the Environmental Protection Authority (1976-1983) *Conservation Reserves for Western Australia as recommended by the Environmental Protection Authority [Systems 1 to 12]* as updated from time to time, and other relevant plans and strategies;
 - g. Ramsar wetlands and wetlands recognised as habitat for migratory species;
 - h. nationally significant wetlands listed in the *Directory of Important Wetlands in Australia* (2001);
 - i. wetlands identified in any relevant Environmental Protection Policy (EPP), such as the Swan Coastal Plain Lakes EPP and the South-West Agricultural Zone EPP; and
 - j. areas listed on the World Heritage List.
- (ii) Seek to avoid or minimise any adverse impacts, directly or indirectly, on areas of high biodiversity or conservation value as a result of changes in land use or development.
- (iii) Assist in establishing a comprehensive, adequate and representative conservation reserve system throughout the State for flora, fauna habitat, landscapes, waterways, estuaries and wetlands.
- (iv) Safeguard and enhance linkages between terrestrial and aquatic habitats which have become isolated, including the re-establishment of habitat corridors.
- (v) Assist the return of areas of high biodiversity conservation value to the public estate or otherwise ensure the protection of high biodiversity conservation values through mechanisms including planning controls or conservation covenants.
- (vi) Support the use of management plans to protect areas of high biodiversity conservation value in the long term.

5.6 Agricultural Land and Rangelands

Western Australia contains large areas devoted to agricultural pursuits such as livestock, cropping and horticulture, as well as pastoral grazing on the arid and semi-arid rangelands of the north. These natural resource assets require consideration in terms of ecological diversity and the environment, as well as the social and cultural values of communities.

² Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

In the more remote parts of the State, social issues such as rural decline is increasing the pressure on natural resources, as a community's capacity for management decreases whilst requirements to intensify agricultural activities are increased.

The rangelands cover over 85% of Western Australia and contain essential elements of the State's biological diversity. Only about 2% of Western Australia's population lives in these arid and semi-arid lands. Pastoralism is by far the most extensive use, although these lands produce the majority of the State's mineral and energy wealth.

Productive agricultural land is a finite resource that must be managed sustainably for the long term. Planning should ensure that the State's agricultural base is protected from the unplanned loss of high quality productive agricultural land due to permanent changes of land use, and maximise the potential of productive farm land which is of high quality and strategic significance in the State, regional and local context. The *Statement of Planning Policy No. 11: Agricultural and Rural Land Use Planning Policy* requires identification and protection of agricultural areas of State, regional and local significance through identification in regional planning schemes, local planning strategies and town planning schemes.

Planning strategies, schemes and decision-making should:

- (i) Protect and enhance areas of agricultural significance, having regard to State, regional and local issues and characteristics, and to the requirements of *Statement of Planning Policy No. 11: Agricultural and Rural Land Use Planning*.
- (ii) Consider the natural resource capability of rangelands and agricultural lands.
- (iii) Diversify compatible land use activities in agricultural areas and rangelands based on principles of sustainability and recognizing the capability and capacity of the land to support those uses.

5.7 Minerals, Petroleum and Basic Raw Material Resources

Mineral resources, petroleum resources and basic raw materials are important natural resource assets and are a vital part of the economy, contributing 30% to Western Australia's gross domestic product. Mineral production is very diverse with over 50 different minerals in commercial production. The main minerals produced are iron ore, gold and alumina which, with petroleum, provide 80% of the total minerals mined in Western Australia. Mineral exploration is managed under the *Mining Act 1978*.

The Western Australian Petroleum Industry accounts for a substantial portion of the State's earnings from resources development. Onshore gas fields and pipelines carrying gas to domestic markets, processing plants and other industrial sites, require protection in the form of setback distances and dedicated easements, that safeguard the infrastructure and the safety of local communities. The activities of the oil and gas industries are administered by the Department of Mineral and Petroleum Resources, using petroleum legislation and regulations.

Basic raw materials include sand, clay, hard rock, limestone and gravel together with other construction and road building materials. A ready supply of basic raw materials close to developing areas is required in order to keep down the cost of land development and the price of housing. The extraction of basic raw materials on Crown land is covered by the *Mining Act 1978* while quarrying of basic raw materials on private land is administered by local government.

Planning strategies, schemes and decision-making should:

- (i) Identify and protect important and economic mineral resources to enable mineral exploration and mining in accordance with acceptable environmental standards.
- (ii) Identify and protect important basic raw material resources and provide for their extraction and use in accordance with *Statement of Planning Policy No. 10: Basic Raw Materials*.
- (iii) Support sequencing of uses where appropriate to maximise options and resultant benefits to community and the environment.
- (iv) Have regard to the *State Gravel Supply Strategy* (1998), the draft *Towards a State Lime Strategy* (2001) and any other Government adopted basic raw material or mineral strategy, in considering proposals for the extraction of basic raw materials and mineral resources.
- (v) Support, where possible, improved efficiencies in the production and consumption of mineral and basic raw material resources to ensure their availability for future environmental and human uses.

5.8 Marine Resources and Aquaculture

Commercial and recreational fishing and aquaculture are important contributors to the State's economy, and adequate protection of marine, estuarine and riverine environments and resources that support these industries is required.

Whilst commercial fishing activities in Western Australia are focused in the marine environment, recreational fishing also occurs in creeks and estuaries and along the shore and contributes greater than

\$570 million annually to the State's economy. Aquaculture continues to increase its importance, as new land based and marine aquaculture sites are established throughout the State.

Planning should recognise and account for areas of significance and ensure compatibility of land use planning decisions and actions associated with, and adjacent to, these areas.

Western Australia's planning system does not directly engage in planning for the marine environment. However, the need for integrated marine planning is acknowledged, and will be assisted by the preparation of a State marine planning strategy. Further, *Oceans Policy* (1999) outlines the Commonwealth government's intention to prepare regional marine plans. This includes Commonwealth waters adjacent to Western Australia.

Planning strategies, schemes and decision-making should:

- (i) Take account of the location of areas of significance for recreational and commercial fishing and aquaculture, having regard to State, regional and local issues and characteristics. This should include land based infrastructure that supports these industries.
- (ii) Seek to avoid or minimise any adverse impacts, directly or indirectly, on areas of significance for commercial and recreational fishing and aquaculture as a result of adjacent land use planning decisions and actions.

5.9 Landscape

Western Australia has a diversity of high value landscapes and scenic areas, many of which are unique to Australia. These range from the unmodified semi-arid and subtropical landscapes of the north and east of the State to modified rural farming landscapes in the south-west, and encompass a diversity of natural coastal landscapes, vast flat plains, mountain ridges and forested areas.

There is an increasing appreciation and valuing of natural landscapes by the community. These landscapes provide opportunities for recreation and tourism and fulfil a psychological need in providing a contrast to the urban environments in which the majority of Australians live.

It is recognised that landscapes change in response to demands for primary products, recreation and tourism as well as for rural living. Furthermore, the values of the community with regard to landscapes also change over time. Accordingly, as the State grows, it will be increasingly important to ensure that those landscapes that are valued by the community are protected. To do this it is necessary to identify the landscape types and features requiring special attention, and to develop appropriate management and planning policies that can positively contribute to their maintenance and enhancement.

Planning strategies, schemes and decision-making should:

- (i) Identify and safeguard landscapes with high geological, geomorphological or ecological values, as well as those of aesthetic, cultural or historical value to the community, and encourage the restoration of those that are degraded.
- (ii) In areas identified in 5.9(i) above, consider the level or capacity of the landscape to absorb new activities and incorporate appropriate planning and building design and siting criteria to ensure that new development is consistent and sensitive to the character and quality of the landscape.
- (iii) Consider the need for a landscape, cultural or visual impact assessment for land use or development proposals that may have a significant impact on sensitive landscapes.

5.10 Greenhouse Gas Emissions and Energy Efficiency

There is widespread awareness of the need to increase the efficiency with which energy is used in Western Australia, including the need to reduce our reliance on energy produced from non-renewable resources such as fossil fuels. The primary objective is to reduce greenhouse gas emissions by means including (but not limited to) increasing energy efficiency, decreasing reliance on non-renewable fuels, and increasing usage of renewable energy sources.

The most recent National State of the Environment report recognises that Australians have a high per capita level of greenhouse emissions by world standards, increasing by 16.9% between 1990 and 1998.

Guided by the *National Greenhouse Strategy* (1998), the *draft State Sustainability Strategy* (2002), and the State greenhouse strategy currently being developed, planning can contribute to reducing the use of energy by the community through the design of urban settlements, promoting the use of alternative fuels and encouraging landscaping to provide energy efficient microclimates. Planning can also contribute to reductions in greenhouse gas emissions by reducing car dependency and encouraging the retention of vegetation and promoting revegetation in land use and development proposals.

Planning strategies, schemes and decision making should:

- (i) Promote energy efficient development and urban design incorporating such issues as energy efficient building design, walkable neighbourhoods, higher densities in areas accessible to high quality public transport, local access to employment, retail and community facilities, and orientation of building lots for solar efficiency.

- (ii) Support the retention of existing vegetation and revegetation in subdivision and development proposals.
- (iii) Support the use of alternative energy generation, including renewable energy, where appropriate.
- (iv) Support the adoption of adaptation measures that may be required to respond to climate change.

6. IMPLEMENTATION

The purpose of this policy is to inform local governments and the Town Planning Appeals Tribunal of those aspects of State-level planning policy concerning the environment and natural resources which should be taken into account in planning decision-making, while acknowledging the inherent difficulties of balancing conflicting needs. The policy will also guide the WAPC in undertaking its planning responsibilities and, where appropriate, in integrating and co-ordinating the activities of the many State agencies that influence the use and development of land as well as the management and protection of natural resources.

Measures for implementing the policy are many and varied. Primarily, implementation will be through the preparation of strategic plans, regional and local statutory schemes, conservation and management strategies, and other relevant plans to achieve the objectives of the policy. Implementation will also occur through the day to day process of decision-making on subdivision and development applications, and the actions of other State agencies in carrying out their responsibilities. Local governments and State agencies will need to take account of these policy measures to ensure integrated decision-making and in the planning and management of the environment and natural resources.

The State Government will support local governments where appropriate in the preparation of policies and plans, and to address the issues raised within this Policy. This may include the provision of data and relevant information to assist local governments in the preparation of their town planning schemes and plans, and in making other planning decisions.

7. REFERENCES

- Australian and New Zealand Environment and Conservation Council (1994) *National Water Quality Management Strategy* Canberra, AGPS
- Australian Greenhouse Office (1998) *National Greenhouse Strategy*, Canberra, AGPS
- Australian State of the Environment Committee (2001) *Australia state of the environment*, Canberra, AGPS
- Commonwealth Government of Australia (1999) *Oceans Policy*, Canberra, AGPS
- Department of Conservation and Land Management (1997) *Wetlands Conservation Policy for Western Australia* Como, WA
- Department of Environmental Protection (2000) *Perth Air Quality Management Plan*, Perth, WA
- Department of the Environment, Sport and Territories (1996) *National Strategy for the Conservation of Australia's Biological Diversity*, Canberra, AGPS
- Department of Environmental Protection (1998) *Environment Western Australia 1998: State of the Environment Report*, Perth WA
- Department of Fisheries (2002) *State of the Fisheries Report 2000-2001*, Perth WA
- Ecologically Sustainable Development Steering Committee (1992) *National Strategy for Ecologically Sustainable Development*, Canberra, AGPS
- Government of Western Australia (2002) *Focus on the future: The Western Australian State Sustainability Strategy, Consultation Draft*, September 2002
- Government of Western Australia (2002) *Government Response to the Salinity Taskforce Report: Salinity: a new balance* June 2002
- Government of Western Australia (2002) *Statement of Planning Policy No. 11: Agricultural and Rural Land Use Planning Policy*, State Law Publisher, Perth, WA
- Government of Western Australia (2000) *Statement of Planning Policy No. 10: Basic Raw Materials*, State Law Publisher, Perth, WA
- Government of Western Australia (2000) *Statement of Planning Policy No. 8: State Planning Framework Policy*, State Law Publisher, Perth, WA
- Government of Western Australia (1999) *Western Australian Government Framework to Assist in Achieving Sustainable Natural Resource Management in Western Australia*, Perth, WA
- Government of Western Australia (1997) *Statement of Planning Policy No. 4: State Industrial Buffer Policy*, State Law Publisher, Perth, WA
- Government of Western Australia (1992) *Environmental Protection (Kwinana) (Atmospheric Waste) Policy* State Law Publisher, Perth, WA
- Government of Western Australia (1992) *Environmental Protection (Goldfields residential areas)(sulphur dioxide) Policy* State Law Publisher, Perth, WA

National Environment Protection Council (Australia) (1998) *National Environment Protection Measure for Ambient Air Quality*, Adelaide, SA

Salinity Taskforce (2001) *Salinity : a new balance : the report of the Salinity Taskforce established to review salinity management in Western Australia* Perth, WA

Water and Rivers Commission, (2001) *State water quality management strategy*, East Perth, WA

Western Australian Planning Commission (1997) *State Planning Strategy*, Perth, WA

Main Roads Western Australia (1998) *State Gravel Supply Strategy*, Perth, WA

Department of Resources Development (2001) *Towards a State Lime Strategy, draft* Perth, WA