

WETLANDS CONSERVATION POLICY



FOR WESTERN AUSTRALIA



GOVERNMENT OF WESTERN AUSTRALIA



Freshwater paperbark (*Melaleuca raphiophylla*)
Photo - Dennis Sarson/Lochman Transparencies





PREFACE

Western Australia has an enormous diversity of wetlands, from tidal mangroves, sand and mudflats, through coastal lakes, swamps and marshes, to inland salt lakes, springs and claypans. These support a rich natural heritage of plant and animal life and have many related values including recreation, tourism, fisheries, water supply and flood mitigation.

The Western Australian Government recognises the fundamental importance of sustaining the environment upon which the social and economic development of this State is based. Wetlands form a vital living part of our environment. It is essential that they be conserved and wisely managed. It is to this end that the Government has supported the development of the Wetlands Conservation Policy for Western Australia.

This policy has two main component - a Statement of Policy, and a Strategy for Implementation. These are elaborated in the following pages.

The five primary objectives in the Statement of Policy are deliberately expressed in pure form, in the belief that this policy should aim high in its long term pursuit of the protection of wetlands. It is recognised that these objectives will not be achieved immediately. The Strategy for Implementation provides a range of processes aimed towards achievement of the primary objectives.

During 1997-98, a Program of Action will be developed by the agencies involved in implementation of this policy, through the Wetlands Coordinating Committee established under the policy. Successful implementation will require government, private enterprise, landholders and the community at large working in partnership. This has been recognised in development of the policy and will also be a major theme in the Program of Action.

This policy, and the Government's commitment to the development of a Program of Action, form further tangible evidence of Western Australia's support for the objectives of the Ramsar Convention on Wetlands of International Importance, the Japan-Australia Migratory Birds Agreement, the China-Australia Migratory Birds Agreement and the National Strategy for the Conservation of Australia's Biological Diversity.

We are pleased to release this Wetlands Conservation Policy and commend it to the Western Australian community.

Richard Court

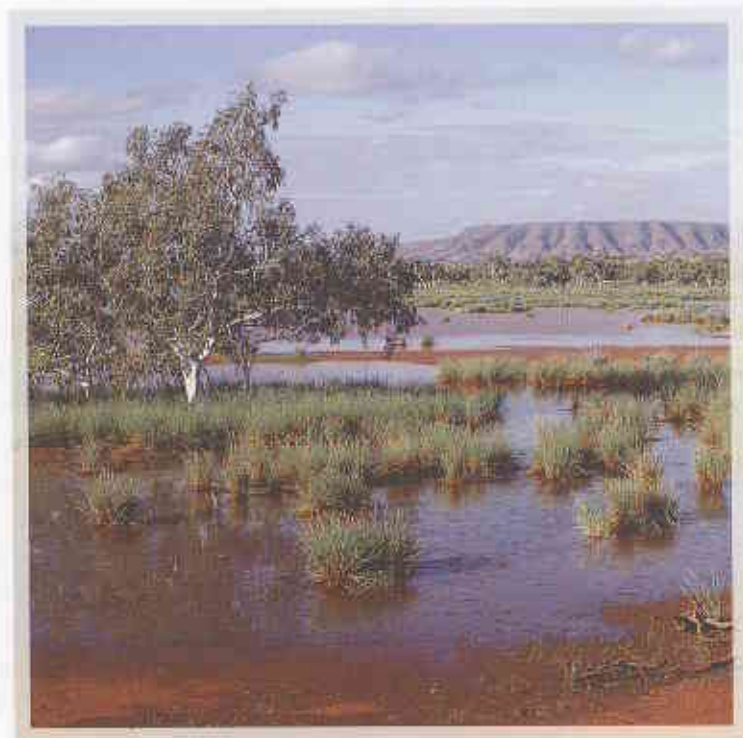
PREMIER

Cheryl Edwardes

MINISTER FOR THE ENVIRONMENT

Dr Kim Hames

MINISTER FOR WATER RESOURCES



Yadjiyugga Claypan (Pilbara)
Photo - Jim Lane





SCOPE OF POLICY

The "Ramsar" Convention on Wetlands of International Importance, to which Australia and 99 other nations are signatories, defines wetlands as:

"areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".

The Statement of Policy presented on page 7 of this policy document applies to the full range of wetland types covered by the Ramsar definition. The Ramsar definition has been adopted for this purpose because of its global acceptance and recognition, its applicability to the broad range of wetland types in this State, and the well-established role of the Western Australian Government in the implementation of the Convention and the fulfilment of its objectives.

The Ramsar definition is broad in its coverage and encompasses other "special purpose" definitions of wetlands, such as those used in the Swan Coastal Plain Lakes Environment Protection Policy and the South West Agricultural Zone Wetlands Environmental Protection Policy.

Whereas the Statement of Policy applies to all wetland types, the Strategy for Implementation applies principally to those types of environments that have more traditionally been regarded as wetlands. These include lakes, swamps, marshes, springs, damplands, impoundments, intertidal flats and mangroves.

Although Western Australia's rivers, estuaries and shallow marine areas are within the scope of the Ramsar definition and therefore the Statement of Policy, their specific conservation needs will be addressed primarily through other government programs (rather than the Strategy for Implementation), due to the special attributes and values of those environments.

Comment

As Cowardin et al. (1979) have noted, "there is no single, correct, indisputable, ecologically sound definition for wetlands, primarily because of the diversity of wetlands and because the demarcation between wet and dry environments lies along a continuum. Because reasons or needs for defining wetlands also vary, a great proliferation of definitions has arisen".

The (Ramsar) definition adopted for the Wetlands Conservation Policy for Western Australia is based on the physical, chemical and biological properties of wetlands. It will enable wetlands to be identified for the purposes of inventory, evaluation and management

Reference: Cowardin, L.M., Carter, V., Golet, F.C. and E.T. LaRoe (1979). Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, U.S. Dept. Interior. Washington, D.C.



Lake Ballard (Eastern Goldfields)
Photo - Jim Lane





STATEMENT OF POLICY

The Government of Western Australia, recognising that wetlands,

- ① are essential habitats for a multitude of plant and animal species, many of which have high public appeal;
- ② play a key role in supporting the diversity and abundance of species within surrounding terrestrial ecosystems;
- ③ add considerable landscape diversity and aesthetic appeal to a mainly arid land;
- ④ provide many opportunities for enjoyment for the people of Western Australia;
- ⑤ are, in some cases, of international significance, particularly as habitats for migratory bird species;
- ⑥ have other significant values, including flood mitigation, water resource, soil conservation, biological filtration, fish nurseries, Aboriginal and historical significance, recreation and tourism;
- ⑦ form one of the habitats that will be most affected by possible climate change;
- ⑧ have, in many instances, been unnecessarily lost or diminished in value through inappropriate use or management of the wetlands themselves and their catchments;
- ⑨ may be conserved and enhanced through proper planning and management,

is committed to identifying, maintaining and managing the State's wetland resource, including the full range of wetland values, for the long term benefit of the people of Western Australia.

In making this commitment the Government establishes the following principal objectives with respect to conservation of the resource:

- 1 To prevent the further loss or degradation of valuable wetlands and wetland types, and promote wetland conservation, creation and restoration.
- 2 To include viable representatives of all major wetland types and key wildlife habitats and associated flora and fauna within a Statewide network of appropriately located and managed conservation reserves which ensure the continued survival of species, ecosystems and ecological functions.
- 3 To maintain, in viable wild populations, the species and genetic diversity of wetland-dependent flora and fauna.
- 4 To maintain the abundance of waterbird populations, particularly migratory species.
- 5 To greatly increase community awareness and appreciation of the many values of wetlands, and the importance of sound management of the wetlands and their catchments in the maintenance of those values.

This commitment is made in accordance with the conservation objectives of the State Conservation Strategy for Western Australia (1987) and contributes towards its implementation.



Loch McNess (Yanchep)
Photo - Des Birt





STRATEGY FOR IMPLEMENTATION

The following Strategy outlines the way in which the State Government will endeavour to achieve the objectives of the Wetlands Conservation Policy for Western Australia.

Successful implementation of the policy will require commitment not only from the Western Australian Government, but also from Commonwealth and Local Governments, landholders, the private sector, conservation organisations, and other interest groups. A cooperative approach will be essential.

The Government will encourage community participation by promoting wetland conservation, and by facilitating voluntary efforts to conserve, restore and enhance wetlands, principally through the development and provision of sound advice concerning wetland values and the management of wetlands and their catchments.

A "Wetlands Coordinating Committee" will be established to coordinate the implementation of this policy and the activities of relevant agencies with respect to wetlands.

This Committee will include representatives of the Department of Conservation and Land Management (two, Director of Nature Conservation as chairperson), Ministry for Planning, Department of Environmental Protection, Water and Rivers Commission, Agriculture Western Australia, local government, two representatives of the voluntary conservation movement with specific knowledge about wetlands and their biota and a recognised, non-government, wetland scientist.

The Committee will report directly to the Minister for the Environment.

Although Western Australia's river systems, estuaries and nearshore marine areas are within the scope of the Statement of Policy, their specific conservation needs will be addressed primarily through other government programs (rather than the Strategy for Implementation), due to the special attributes and values of those environments.

It is the intention of this policy to encourage the conservation and proper management of wetlands and to encourage development to be consistent with the objectives of the policy. However, where implementation of this policy conflicts with other proposals, that conflict will be resolved through the normal processes of State Government. A review of progress in implementation of this policy will be prepared by the Wetlands Coordinating Committee three years after its formation.

The State Government agencies with *primary* responsibility for each of the actions listed below are indicated in italics at the end of each action statement. (See p.22 for a list of acronyms and their meanings.) Where several agencies are listed, coordination will be achieved through the Wetlands Coordinating Committee. Other, non-listed agencies may also be involved in the implementation of action items, where their functions are relevant.

In order to achieve the first primary objective of the Wetlands Conservation Policy for Western Australia, namely "to prevent the further loss or degradation of valuable wetlands and wetland types, and promote wetland conservation, creation and restoration",

the Government will, in addition to the actions listed under other objectives,

- 1.1 ensure coordination and cooperation between its agencies in order to achieve the policy's objectives; *State Government agencies*
- 1.2 encourage cooperation and coordination between Commonwealth, State and Local Government and private sector organisations for the conservation of wetlands; *State Government agencies*
- 1.3 ensure land and water-use planning procedures recognise wetlands and promote the conservation of wetlands on a catchment or regional basis; *MfP & WRC jointly*
- 1.4 provide for a statutory environmental protection framework under the *Environmental Protection Act 1986* for the conservation of important wetlands on private and public lands throughout Western Australia, and assist the EPA in the development and review of statutory environmental protection policies; *DEP*
- 1.5 promote, implement and monitor the effectiveness of wetland environmental protection policies and associated regulations (e.g. the South West Agricultural Zone Wetlands Environmental Protection Policy); *DEP*
- 1.6 ensure that any proposals likely to have a significant environmental impact on wetlands are referred to the EPA for environmental impact assessment and assist the EPA with assessments; *DEP*
- 1.7 assist the EPA with the publication of policies and criteria for the environmental impact assessment of new developments which may affect wetlands; *DEP*
- 1.8 ensure that any prescribed premises discharging waste likely to affect wetlands are subject to works approval and licensing under the *Environmental Protection Act 1986*; *DEP*
- 1.9 develop guidelines based on ecological grounds for provision of "buffers" between proposed developments and wetlands; *MfP, WRC, DEP & CALM jointly*
- 1.10 develop and promote the use of a single classification system, including vegetation classification, for the wetlands of Western Australia; *WRC & CALM jointly*
- 1.11 on a catchment or regional basis, prepare inventories of the wetlands of Western Australia, in particular their distribution, attributes, functions and uses; *WRC (physical aspects) & CALM (biological aspects) jointly, DEP (Environmental Protection Policy registers)*
- 1.12 periodically review the state (quantity and quality) of the wetlands of Western Australia through comparative inventories and monitoring, on a catchment or regional basis, to identify and suggest remedies for any failures in achieving the aims of this policy; *WRC & CALM (both inventories & monitoring) & DEP (State of the Environment reporting), jointly*
- 1.13 develop a wetland evaluation process, including identification of "beneficial uses" and management objectives, with Statewide applicability, that will assist in ensuring that planning and management decisions concerning wetlands and their catchments are based upon as complete a knowledge as possible of current and foreseen wetland values; *WRC, CALM & DEP jointly*
- 1.14 evaluate wetlands on a continuing basis as knowledge becomes available and circumstances change; *WRC & CALM jointly*

- 1.15 undertake and facilitate research needed to ensure that wetland conservation measures, including sympathetic catchment management practices, are soundly-based and cost-effective; *WRC, CALM & AgWA*
- 1.16 establish a wetland management advisory capacity in CALM to provide practical wetland management advice, particularly to landowners and landowner groups (e.g. Land Conservation District Committees); *CALM*
- 1.17 develop informative, technical products (pamphlets, manuals, videos etc.) concerning wetland values and wetland conservation, creation, restoration and enhancement, for use by planners, managers, advisers, and private landowners; *CALM, WRC & DEP jointly*
- 1.18 identify and develop short and long term economic incentives for wetland conservation and sympathetic catchment management, particularly on private land; *CALM & AgWA jointly*
- 1.19 encourage and assist private landowners and leaseholders to conserve, create, restore and enhance wetlands on a voluntary basis; *CALM, WRC, DEP & AgWA*
- 1.20 encourage local authorities and government agencies to prepare and implement, with public involvement, management plans for wetlands under their control; *MIP, WRC, DOLA, CALM & DEP*
- 1.21 develop and encourage the creation of innovative designs for improving the wildlife habitat value of artificial water supply, storage and drainage systems. *WRC & CALM jointly*



Lake Moore (Paynes Find)
Photo – Jiri Lochman



In order to achieve the second primary objective of the Wetlands Conservation Policy for Western Australia, namely "to include viable representatives of all major wetland types and key wildlife habitats and associated flora and fauna within a Statewide network of appropriately located and managed conservation reserves* which ensures the continued survival of species, ecosystems and ecological functions",

the Government will, in addition to actions listed under other objectives,

- 2.1 through wetland classification, inventory and biological survey, identify major wetland types and key wildlife habitats; *CALM & WRC*
- 2.2 assess the extent to which major wetland types and key wildlife habitats are represented in the State's conservation reserve system; *CALM*
- 2.3 where appropriate, reserve additional representative wetlands and key habitats for conservation; *CALM & DOLA jointly*
- 2.4 give adequate emphasis to wetlands, wetland buffers and wetland catchments in the purchase of conservation lands; *MIP, CALM*
- 2.5 develop management goals, management criteria and monitoring programs for wetland reserves; *relevant management agencies, principally CALM (NPNCA, MPRA & LFC-vested reserves) & WRC (local government, Water Corporation & WRC reserves)*
- 2.6 with provision for community input, prepare and implement management plans for wetland reserves, or facilitate their preparation and implementation; *relevant management agencies, principally CALM, WRC*
- 2.7 provide for the management of wetland reserves; *relevant management agencies, principally CALM, WRC*



Kimberley billabong
Photo – Jiri Lochman

- 2.8 develop and provide training programs for wetland policy officers, planners, managers, advisers and education officers employed by State and Local Government and the private sector; *WRC, MIP, DEP, CALM & ED jointly*
- 2.9 fulfil its responsibilities under international agreements relating to the conservation of migratory waterbirds and wetlands; *CALM*
- 2.10 under the provisions of international agreements relating to wetlands and migratory waterbirds, seek Commonwealth assistance for wetland purchase, management and research, training of relevant staff, and monitoring; *CALM*
- 2.11 undertake and support studies needed to identify wetlands of international significance, especially as habitats for migratory waterbirds; *CALM*
- 2.12 investigate the importance of aesthetics in the public's perception of wetland values, particularly in relation to establishment and consolidation of wetland conservation reserves, and the provision of adequate buffers; *CALM*
- 2.13 further develop environmentally-sensitive methods of dealing with public issues such as nuisance midge and mosquito problems; *HD, DEP, WRC & CALM*
- 2.14 establish a Trust to raise funds from wetland users, owners and managers, as well as the private sector and the general public, for wetland purchase, management and related research; *CALM*

* "Conservation reserves" are areas of Crown (State Government) land or water designated as Nature Reserves, National Parks and Conservation Parks vested in (placed under the care of) the National Parks and Nature Conservation Authority, and Marine Nature Reserves, Marine Parks and Marine Management Areas vested in the Marine Parks and Reserves Authority, and managed by the Department of Conservation and Land Management. "Wetland reserves" refers to wetlands reserved for any purpose, including for conservation.



Parry Lagoons (Kimberley)
Photo - Jiri Lochman

In order to achieve the third primary objective of the Wetlands Conservation Policy for Western Australia, namely "to maintain, in viable wild populations, the species and genetic diversity of wetland-dependent flora and fauna",

the Government will, in addition to actions listed under other objectives,

- 3.1 review the state of knowledge of the taxonomy (classification into genus, species etc.) and geographic distribution of the flora and fauna of wetlands; *CALM & WAM*
- 3.2 undertake and support research needed to clarify the taxonomy and distribution of poorly known groups, particularly those considered to be ecologically important (e.g. rushes and sedges, crustaceans, aquatic insect larvae, diatoms, rotifers); *CALM & WAM*
- 3.3 undertake and support research needed to clarify ecological roles and requirements of species judged to be important in the maintenance of wetland values (e.g. melaleucas, casuarinas, eucalypts, rushes and sedges, ostracods, chironomids, waterbirds); *CALM*
- 3.4 undertake and support research needed to clarify the influence of water chemistry (e.g. salinity, pH, nutrient loads), hydrology (e.g. seasonal variation in water depth) and microbiology (e.g. decomposition and nutrient cycling) on ecosystem functioning and the maintenance of species diversity; *CALM & WRC*
- 3.5 undertake and support research needed to clarify the role of fire in wetland environments; *CALM*
- 3.6 through recovery plans and management programs seek to prevent the extinction of threatened species of indigenous, wetland flora and fauna (e.g. western swamp tortoise) and threatened wetland ecological communities (e.g. Lake Toolibin); *CALM*
- 3.7 manage utilisation, where permitted, of species of wetland flora and fauna (e.g. boronia, crocodiles) so as to ensure that harvests are not to the long term detriment of the populations of those or other species or their habitats; *CALM*
- 3.8 ensure that tangible, long term benefits for the conservation of harvested species and their habitats result from utilisation of wetland flora and fauna, where permitted; *CALM*
- 3.9 endeavour to manage the wetland resource so as to maintain species diversity; *CALM & WRC*
- 3.10 review the implications of possible climate and sea level change for the maintenance of wetland flora and fauna species diversity and wetland ecosystems; *CALM, WRC & DEP*
- 3.11 seek opportunities for mitigating adverse effects of possible climate and sea level change on wetland species diversity and wetland ecosystems; *CALM, WRC & EPA*



In order to achieve the fourth primary objective of the Wetlands Conservation Policy for Western Australia, namely “to maintain the abundance of waterbird populations, particularly migratory species”,

the Government will, in addition to actions listed under other objectives,

- 4.1 develop and implement programs for monitoring the abundance, distribution and seasonal movements of waterbird populations; *CALM*
- 4.2 establish population abundance goals for waterbirds, on a State or regional basis, commencing with black swan (*Cygnus atratus*), ducks (*Anatidae*) and migratory and resident waders (*Charadrii*); *CALM*
- 4.3 through appropriate research, identify habitat requirements for achievement of waterbird population goals; *CALM*
- 4.4 maintain and enhance, through management and the provision of management advice, wetland habitats required for achievement of waterbird population goals; *CALM (management & advice) & WRC (management)*
- 4.5 through appropriate research, identify other factors (besides habitat) which limit the abundance of waterbird populations (e.g. excessive predation of nesting birds and young); *CALM*
- 4.6 endeavour through management, and the provision of management advice, to increase waterbird productivity and decrease mortality on appropriate wetlands and wetland types, as necessary to achieve population goals; *CALM (management & advice) & WRC (management)*
- 4.7 through appropriate channels (e.g. Commonwealth Government of Australia), encourage the maintenance of populations and habitats of migratory waterbird species in countries which share those populations with Western Australia, i.e. eastern Asia and Russia; *CALM*
- 4.8 facilitate the efforts of volunteer groups wishing to rehabilitate sick and injured waterfowl; *CALM*
- 4.9 investigate the causes of major waterbird mortalities (due to botulism, algal poisoning etc.) and, where practicable, take or encourage actions necessary to minimise recurrences; *CALM*
- 4.10 review the implications of possible climate and sea level change for the maintenance of waterbird abundance; *CALM*
- 4.11 seek opportunities for mitigating adverse effects of possible climate and sea level change on waterbird abundance; *CALM*

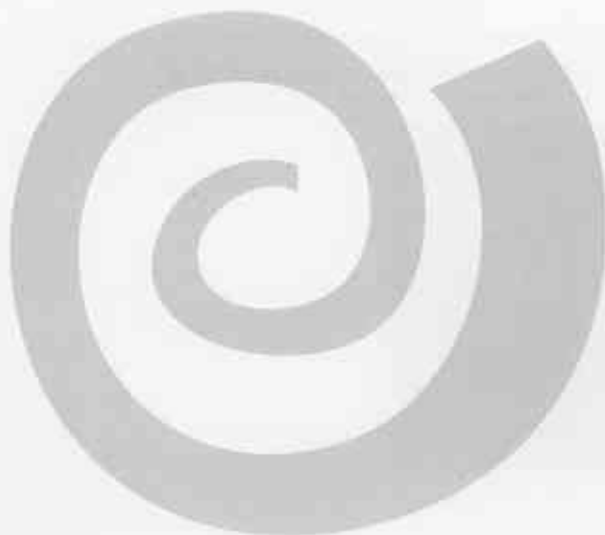
Sharp-tailed Sandpiper (*Calidris acuminata*)
Photo – Babs & Bert Wells/CALM



In order to achieve the fifth primary objective of the Wetlands Conservation Policy for Western Australia, namely "to greatly increase community awareness and appreciation of the many values of wetlands, and the importance of sound management of the wetlands and their catchments in the maintenance of those values",

the Government will, in addition to actions listed under other objectives,

- 5.1 further involve the community in cooperative scientific and cultural research, monitoring and management projects relating to wetlands, wetland biota, and wetland catchments; *CALM, WRC, AAD & WAM*
- 5.2 further develop, with community input, a wide range of wetland educational material and activity programs for schools, tertiary institutions, State and Local Government authorities and advisory services, target audiences and interested groups and individuals; *ED, WRC, DEP, CALM, AAD & WAM*
- 5.3 encourage and support the establishment and operation of a small number of strategically-located wetland centres, e.g. Herdsman Lake Wildlife Centre and Cockburn Wetland Centre; *CALM*
- 5.4 investigate opportunities for increasing tourist use and enjoyment of wetlands through increased publicity and the provision of improved, guided access to appropriate wetlands, particularly those of international, national or regional significance; *CALM & WATC jointly*
- 5.5 obtain and provide resources needed to ensure that improved tourist access, where provided, does not detract from, and where possible, enhances, wetland values; *CALM & WATC jointly*





Boardwalk, Herdsman Lake
Photo - Kevin Kenneally



Lake Joondalup
Photo – Eva Boogaard/Lochman Transparencies



ROLE OF GOVERNMENT AGENCIES IN THE CONSERVATION OF WETLANDS

The roles of Government agencies to be represented on the proposed Wetlands Coordinating Committee are as follows:

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

The Department of Conservation and Land Management (CALM) is responsible for management of Western Australia's conservation estate (national parks, nature reserves, marine parks, etc.), forest estate and all indigenous flora and fauna. CALM manages these resources on behalf of the National Parks and Nature Conservation Authority, the Marine Parks and Reserves Authority and the Lands and Forest Commission. Most of Western Australia's nationally and internationally (and many regionally) significant wetlands are within existing or proposed conservation reserves managed by CALM. CALM also encourages and assists in the conservation and management of privately owned wetlands. As the State's principal nature conservation agency, CALM is responsible for overseeing the implementation of international wetland and migratory wildlife agreements in Western Australia.

WATER AND RIVERS COMMISSION

As Western Australia's primary water resources manager, the Water and Rivers Commission has major responsibilities relating to the management of a range of wetlands including rivers, lakes, swamps, estuaries and inlets. It also manages all underground water. The primary objective of this management is to support both ecologically sustainable development and conservation of the environment, for the long term benefit of the community. The Water and Rivers Commission has a significant role in wetland management with respect to classification and evaluation, ensuring an integrated approach to the management of catchments and for managing water quantity and quality regimes where they have the potential to affect environmental, cultural and other wetland values.



DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Department of Environmental Protection (DEP) assists the Environmental Protection Authority (EPA) and the Minister for the Environment in administration of the Environmental Protection Act 1986. The Act applies to all lands of the State, provides for the preparation of statutory environmental protection policies (EPPs) and establishes environmental impact assessment (EIA) and pollution prevention procedures. Wetland EPPs have been prepared and EIA procedures employed to protect important wetlands across the south west of WA. The DEP encourages and assists in the conservation of wetlands outside of reserves and provides advice on wetland protection objectives and regulatory matters to the EPA, Government and the community guided by the goals of sustainable development and biodiversity conservation.

MINISTRY FOR PLANNING

The Ministry for Planning (MfP) is responsible for advising the Western Australian Planning Commission on land use planning and policy matters. This is achieved through the preparation and review of region schemes, corridor plans, local authority town planning schemes and scheme amendments and the development of planning policies. Through its land use planning processes, both statutory and non statutory, MfP has a major influence on the establishment of wetland reserves and the determination of appropriate land use in catchments in urban areas. MfP acquires substantial areas of land, including wetlands and fringing vegetation, which is reserved under the Metropolitan Region Scheme for Parks and Recreation. MfP is therefore an "interim manager" of some important wetlands until the establishment of future management by an appropriate authority.



Microbialite reef (Lake Clifton)
Photo – Jeff Kite



AGRICULTURE WESTERN AUSTRALIA

Agriculture Western Australia includes within its responsibilities land conservation and sustainable land management, as required by the Soil and Land Conservation Act 1945. Under its Sustainable Rural Development Program these responsibilities are implemented in a catchment management framework, with a focus on catchments where agriculture is a dominant land use. Through its services to landholders and catchment groups, and its regulation of land degradation, the agency can assist in preventing further deterioration of wetlands and other environmental values.

OTHER GOVERNMENT AGENCIES

Numerous other Government agencies such as the Aboriginal Affairs Department, Department of Land Administration, Education Department, Fisheries Department, Health Department, Western Australian Museum and the Western Australian Tourism Commission, though not represented on the proposed Wetlands Coordinating Committee, have statutory roles that are relevant to aspects of this policy and will therefore be involved in its implementation.

LOCAL GOVERNMENT

Local government authorities have a substantial role in the management of individual wetlands and in planning and other local decisions affecting wetlands and will therefore have a representative on the Wetlands Coordinating Committee.



Shield shrimp (*Triops australiensis*)
Photo - Tabs & Bert Wells/CALM



ACRONYMS

The following acronyms appear in this document

AAD	Aboriginal Affairs Department
AgWA	Agriculture Western Australia
CALM	Conservation and Land Management
DEP	Department of Environmental Protection
DOLA	Department of Land Administration
ED	Education Department
EPA	Environmental Protection Authority
HD	Health Department
LFC	Lands and Forest Commission
MfP	Ministry for Planning
MPRA	Marine Parks and Reserves Authority
NPNCA	National Parks and Nature Conservation Authority
WAM	Western Australian Museum
WAPC	Western Australian Planning Commission
WATC	Western Australian Tourism Commission
WRC	Water and Rivers Commission



Western Swamp Tortoise (*Pseudemydura umbrina*)
Photo – Babs & Bert Wells/CALM



Motorbike frog (*Litoria moorei*)
Photo – Babs & Bert Wells/CALM

