

# The Challenge of Wetland Conservation in WA: A Vision for 2029

## Summary

- A healthy society is based on a healthy environment.
- We live in a place of great biodiversity. The southwest of WA is one of the top 35 biodiversity hotspots in the world.
- Wetlands are scarce in WA, but they are vital sources of food and water for wildlife.
- The wetlands of WA are important cultural and ecological sites for the Aboriginal people. They sustainably managed and used them for thousands of years. We should learn from their experience and seek their advice on future management.
- Since European settlement in 1829, many wetlands have been drained, filled or polluted. It is estimated that less than 20% of the original wetlands are left on the Swan Coastal Plain and most of them have been modified or damaged. Those that remain are now essential for the health of our environment and society.
- This paper presents a vision for the bicentennial of European settlement in 2029. To mark this date appropriately, we must recognise the mistakes of the past and commit to conserving and restoring our remaining wetlands.
- The major elements of this plan are:
  - a new Wetlands Conservation Policy for WA;
  - ecologically-based wetland buffer guidelines;
  - an environmental protection policy for wetlands;
  - recognition and nomination of internationally important wetlands in WA to the Ramsar list;
  - creation of additional regional parks to protect wetlands in urban areas;
  - an independent Wetlands Research Institute;
  - support for wetlands education;
  - a community-based Wetlands Coordinating Committee, including traditional owners, to oversee the implementation of this plan.
- Most of the ground work for this plan has been done. We just need the will to coordinate and implement it while we still have the opportunity.

## Why Save Wetlands?

One of the key ingredients of a healthy society is a healthy environment. The environment provides the basic services that we all depend on. These include fresh air, clean water, productive soils and biodiversity.

Wetlands are relatively scarce in Western Australia. Much of our state is arid and most wetlands tend to be ephemeral. However, wetlands are sites of enormous biological productivity and they support many of the key ecological functions on which a healthy society depends. Wetlands sequester carbon and provide water supplies for agriculture and wildlife. They filter and purify drainage waters, provide rainwater storage, and provide breeding areas for wildlife. Within our urbanised spaces they provide places of calm, recreation and beauty that improve mental and physical health. The Aboriginal people understood these values and protected and managed their wetlands to support their society, lifestyle and culture.

### The Values of Wetlands

#### Environmental

- biodiversity hotspots
- wildlife habitat
- wildlife migration sites
- carbon and rainwater sinks
- maintenance of ecological balance
- climate moderation

#### Social

- recreation sites
- research opportunities
- education
- mental health

#### Cultural

- indigenous and European heritage
- landscape enhancement
- aesthetic sites
- spiritual sites

#### Economic

- social amenity
- summer pasture
- water supplies
- tourism
- fish nurseries
- flood mitigation

Since European settlement the wetlands of WA have not fared well. The early European settlers often held negative attitudes towards wetlands, seeing them as impediments to progress and even as sources of pests and diseases. They set about clearing, draining and filling them to suit their land use plans. A few wetlands were beautified in the European style and converted to ornamental ponds. Other wetlands were used as rubbish tips or drainage sumps.

According to the EPA's State of the Environment Report (2007), more than 80% of the original wetlands on the Swan Coastal Plain have been destroyed by development for agriculture, industry and housing. In the agricultural region the situation is even worse with many wetlands over-cleared and lost to salinity. The EPA noted in 2007 that wetland loss was continuing at a rate of about 2 football fields (4ha) per day.

Mismanagement of wetlands has caused many costly social and environmental problems. These include salinisation, flooding, acid sulphate soils, eutrophication, midge and mosquito problems, odour problems, and loss of social amenity. All of these are caused by over clearing and/or pollution.

In recent years we have come to realise the enormous environmental debt that we have created through mismanagement of our wetlands and the failure to understand their role in maintaining a healthy environment. This environmental debt cannot be avoided as it manifests itself in many ways, including floods, fires, loss of productive land, loss of social amenity and public health problems. We are forced to pay the price of poor management through addressing the social and economic problems caused by environmental neglect.

Our vision for the bicentennial of European settlement in WA is to recognise our mistakes and to commit ourselves to rectifying them while we still have the opportunity. This requires us to learn from our experience and to listen to the wisdom of the Aboriginal people and their approach to wetland and biodiversity management. We must incorporate this knowledge into the way we manage our precious natural systems. Furthermore, we must devote more resources to policy development for wetland conservation. After a burst of activity in the eighties and nineties, policy development for wetland conservation has stalled and in some cases important policies have been shelved or revoked as successive governments reduced funding for the environment.

What we need to do now is quite clear and is outlined in the following text. What is needed above all is a commitment to create a healthy and sustainable environment through a partnership between government, industry and the community.

## **Vision**

To restore and conserve the remaining WA wetlands through a cooperative and continuing effort by government, industry and the community as an act of reconciliation for the bicentenary of Western Australian settlement/invasion.

## **Objectives**

1. Raise awareness about the values of wetlands.
2. Develop policies to end net wetland loss.
3. Restore damaged wetlands and wildlife corridors
4. Address the inevitable impacts of climate change.
5. Improve the social amenity of wetlands.
6. Create recreational and tourism opportunities at wetlands.
7. Improve wetland management by drawing on the knowledge of indigenous communities.
8. Establish a mechanism for ongoing wetland research and education.

## **Addressing the Challenge**

After nearly 200 years of neglect and mismanagement our wetlands and biodiversity are in a parlous state. Despite increasing awareness of this predicament and some successful initiatives to address it, there is still a lack of a comprehensive integrated approach to wetland conservation. Surprisingly, very little funding is needed to create a framework for the sustainable management of our remaining wetlands. The main policy initiatives and programs have been defined and partially developed. What is needed now is an effort to complete the policy development and to implement it. The following steps are recommended to address this goal.

1. Update and implement the Wetlands Conservation Policy for WA
2. Complete State Planning Policy 2.9 and the associated Wetland Buffer Guidelines
3. Develop a statewide Environmental Protection Policy for Wetlands
4. Complete the nominations for all eligible Ramsar wetlands in WA
5. Expand the regional parks system
6. Establish a Wetlands Research Institute.
7. Develop partnership arrangements for ongoing management, research and education about wetlands.

Each of these initiatives is explained in more depth below.

### **1. Update and implement the Wetlands Conservation Policy for Western Australia**

The current Wetlands Conservation Policy was released in 1997 and it has been successful in guiding wetland conservation efforts in WA. However, it is now in urgent need of updating. Some of the initiatives have been completed and others are continuing, while others have not commenced or are now obsolete. The Wetlands Coordinating Committee, established under this policy, recognised the need to update the policy in 2007 and a new draft was prepared in 2008. This version has not been released for public review and has not been implemented. There is an urgent need to review it and update it and to release it for public review, prior to finalisation and implementation.

### **2. Complete SPP2.9 and the associated Wetland Buffer Guidelines**

The WA Planning Commission has prepared a draft State Planning Policy SPP2.9 called Planning for Water. This draft policy combines and integrates many aspects of water planning, including wetlands, waterways and groundwater. It is crucial for providing protection for water resources as land development proceeds. The draft policy should be finalised and implemented as soon as possible. The draft SPP2.9 mentions a set of Wetland Buffer Guidelines to guide planners in setting appropriate buffers for wetlands during subdivisional design. The need for these guidelines was recognised more than thirty years ago and they were identified as an important

initiative in the Wetlands Conservation Policy for WA (1997). A draft of the guidelines was commenced in 1998 and released for public review in 2006, but they have not been finalised or implemented. In the meantime, many developments have been approved with inappropriate buffers for adjacent wetlands and this has caused numerous costly social and environmental problems. There is now an urgent need to complete these Wetland Buffer Guidelines and to apply them to all remaining wetlands during the planning process.

### **3. A Statewide EPP for Wetlands**

Section 3 of the Environmental Protection Act allows the EPA to develop Environmental Protection Policies for areas of concern. Such policies have been developed and implemented for matters such as groundwater protection, air quality and significant sites. In 1992 the EPA released an Environmental Protection (Swan Coastal Plain Lakes) Policy which aimed to prevent further wetland loss on the Swan Coastal Plain. This policy was highly effective in protecting the lakes, but the EPA realised that it did not cover many environmentally important seasonal swamps and damplands. So it developed a draft EPP for the Swan Coastal Plain Wetlands, which covered all types of wetlands. This draft was released for public review in 2003 and after extensive discussions and revisions the EPA endorsed it and forwarded it to the Government for gazettal. However, after a change of leadership and a new Minister, the Government decided not to proceed with it. The 1992 Lakes EPP remained in force until it was revoked by the Minister in 2015. Now there is no EPP controlling activities that may degrade or destroy wetlands and every case has to be argued on its merits. It is clear that this situation requires urgent attention and that the problem is statewide and not confined to the Swan Coastal Plain. Thus the need exists for the EPA to prepare an environmental protection policy for wetlands throughout the state. This policy will help to ensure that developments that affect wetlands are guided by a consistent set of principles that are legally enforceable. This EPP could also establish a reporting mechanism which could help to keep the government and other decision makers informed about the state of our wetlands.

### **4. Further Ramsar Nominations**

The Ramsar Convention is an international agreement on wetlands that aims to identify and protect the world's most outstanding wetlands. For a wetland to be included on the list of wetlands of international importance it needs to meet at least one of the nine criteria specified by the Ramsar Bureau. WA is fortunate to have about 40 wetlands that could be nominated for Ramsar listing, but currently only 12 are listed (9 in 1990 and 3 in 2000). They are the Ord River Floodplain; Roebuck Bay; Eighty Mile Beach; Forrestdale and Thomsons Lakes; Lake Warden System; Lakes Argyle and Kununurra; the Peel Yalgorup System; Lake Toolibin; and the Vasse-Wonnerup System (1990) plus the Becher Point Wetlands; Lake Gore; and the Muir-

Byenup System (2000). Documentation has been prepared for at least six more nominations but they have not been completed, due to a variety of reasons including opposition from some landowners and lack of staff resources. They include Lake MacLeod; Tributaries of the Lower Blackwood; Fortescue Marsh; Lake Carnegie; Lake Gregory; Hamelin Pool; Cape Range Sub-terranean Wetlands; and the Greater Brixton Street Wetlands. This situation should be addressed urgently and these six nominations should be submitted before 2025. The remaining nominations should also be prioritised and resources allocated to complete them by 2029. Furthermore these Ramsar listed wetlands should be regularly monitored and a report prepared annually for Government and the public. It is shameful that our outstanding wetland heritage has been neglected and not given the care and attention it needs.

## **5. Expand the Regional Park and Conservation Reserves System**

Regional Parks are an innovative way of protecting fragmented urban ecosystems which have important conservation, recreation and landscape values. The concept was invented in WA by the EPA in its 1984 System Six Report. After many years of planning and discussion, the first eight regional parks were established in 1997 and they have been jointly managed by CALM/DBCA, local governments and other landowners. The concept has proven to be highly effective and is a great example of cooperation between government agencies, industry and community groups.

Although this park system has been seriously underfunded by the State government, the other stakeholders have made up the shortfall in many cases and we now have a highly valued community asset. When the regional park system was established in 1997 we were told that it would be expanded to cover the full set of regional parks recommended by the EPA in 1984 once the model had been tested and refined. That stage was reached at least a decade ago and there is now a need to move ahead with expansion of the system while the opportunity still exists. Planning work has been done for five more regional parks, including Gnangara, lower Serpentine, Swan and Helena Rivers, Peel and Yule Brook. Two new regional parks were recently established in the Bunbury area (Preston River and Leschenault Peninsula). The Greater Geraldton Council has established its own unofficial regional park in the Chapman Valley and this should be recognised and supported. There is very little cost to the state for land acquisition to make this expansion as most of the land required is already in state hands and managed by the state or local government. Incorporating these reserves into regional parks would give them added protection under the CALM Act and provide opportunities for integrated and cooperative management.

## **6. Establish a Wetlands Research Institute**

Research is the basis for conservation and there is an ongoing need to monitor, investigate and report on the condition of our wetlands. This was recognised in the Wetlands Conservation Policy for WA (1997) and a program of research was outlined

in the policy. However, due to lack of funding, it has proven difficult to carry out this program. The inventory of WA wetlands has not been completed, the South West Wetlands Monitoring Program has been abandoned and the threatened and priorities species programs have been cut back. This problem is caused by the shortage of funds for wetlands conservation and the many competing priorities for DBCA research. We suggest that it is time to pursue a cooperative approach that draws on the capabilities of universities, local government, industry and community groups in addition to DBCA and which consults with the Aboriginal communities. A model that works well in other fields is a cooperative research centre, based at a WA University, with funding from state and federal governments, industry, universities and the community. This Institute would not require a new building as the participants would continue to work in their own facilities. The Institute would have a Board composed of representatives of the key sponsors and stakeholders and would be charged with developing and implementing cooperative programs of research based on the updated Wetlands Conservation Policy for WA. This approach would ensure a coordinated effort to implement the research goals of the policy and it would multiply the value of the state's investment in wetland research by attracting matching contributions in cash and kind from other stakeholders. The institute would also have an educational role related to the policy and it would be required to report annually to government on its activities. There are many successful models of such institutes available in the scientific, medical and engineering fields.

## **7. Develop Partnership Arrangements for ongoing management, research and education about wetlands.**

Through the proposed Wetlands Research Institute and the Regional Parks Branch of DBCA a small amount of regular funding could be made available to facilitate community and industry involvement in wetland research, education and management. Some of this has occurred in the past via the Regional Parks Grants Program which facilitates community involvement in on the ground activities in regional parks. Similarly, conservation and funding via Natural Resource Management groups and Catchment Councils have been effective state wide. These programs achieve impressive multipliers and help to address urgent priorities. Other examples include local government grants programs for revegetation and education. The Roe 8 revegetation program is another example of an effective cooperative effort between the state government, local government, universities and the community. Once the wetlands conservation framework is in place, via the initiatives proposed above, this cooperative effort can be coordinated via existing channels. However, the funding, though small, needs to be ongoing to allow groups to plan ahead. Some examples of successful cooperative partnerships for wetland conservation in WA include:

- the Wetlands Centre Cockburn
- the Herdsman Wildlife Centre
- Greenskills Denmark
- the Roe 8 revegetation project
- the Regional Parks System
- the many Friends groups
- the Lake Meallup Preservation Society

Many of these have involved Aboriginal elders in their research, education and conservation work. Australian society has become more educated and knowledgeable about the injustices to first nation people and about the vast land management knowledge that is key to their culture. However, this process is still in its infancy and can be progressed by protecting and conserving our natural wetland heritage with assistance of Aboriginal knowledge and ecological research.

Protecting and conserving country is of primary importance to first nation culture and the highly productive nature of wetlands have made them important sites within that culture. By taking the above steps to protect and conserve wetlands and by sharing this journey with as many stake holders as possible, there is an opportunity to improve reconciliation with first nations people as we approach the Western Australian bicentenary of European settlement/invasion.

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