

Peel-Harvey Catchment Council

Draft

2002 – 2007 Action Plan

For Natural Resource Management

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Section A - Introduction and Background

1. South West Catchments Council

The South West Catchments Council is the regional organisation with a charter to improve the coordination of natural resource management in the South West Region. The South West Region for the purposes of catchment management extends from Serpentine in the north to Walpole in the south and Dumbleyung to the east. The Peel-Harvey catchment is one of six subregions of the South West Region. These subregions are:

- Blackwood
- Cape to Cape
- Geographe
- Leschenault;
- Peel-Harvey; and
- Warren.

The South West Catchments Council has recently produced a draft *South West Regional Strategy for Natural Resource Management* that has been released for public comment. This *Regional Strategy for Natural Resource Management* contains subregional framework chapters describing the priorities in each of the subregions.

2. Peel Harvey Catchment Council

The Peel-Harvey Catchment Council was formed in March 2000 in recognition of the need to embrace and enhance our efforts towards restorative action with an eye to increasing the cumulative beneficial effects of efforts being undertaken. In December 2000 a discussion paper was released outlining issues and potential strategies for their management within the Peel-Harvey Catchment. This document is a continuation of the process begun by that discussion paper.

The Peel-Harvey Catchment is home to approximately 75,000 people. The landscape of the catchment provides many beneficial uses to both residents and visitors to the area. Recreational opportunities abound in marine, estuarine and fresh water systems while forest and rural landscapes provide a wide range of other recreational opportunities. The catchment supports a large variety of rural industries. The dominant land use is grazing but there are substantial areas supporting irrigated horticulture, equine industries, dairies and other rural operations. There is also a large number of intensive animal industries spread throughout the catchment area providing eggs, chicken, pork, and beef to the domestic market and for export. Mining is the region's largest employer and industrial base with alumina production being the dominant industry. All of these industries provide enormous economic benefits for the community. The people, their work opportunities and their recreational opportunities are essential and integral parts of the community; together they provide both the challenges and the opportunities for natural resource management in the Peel-Harvey Catchment.

Major natural resource management issues facing the Peel-Harvey Catchment include water quality and nuisance algal blooms in the waterways, and land clearing for urban and rural purposes impacting upon biodiversity. Similarly drainage is an ongoing problem for many areas. Weeds and feral animals present significant issues for rural production and for conservation management. There is growing public awareness of water resource allocation issues particularly for public drinking water supplies and a growing public interest in ensuring appropriate allocation of water for environmental purposes within our rivers, wetlands and waterways. A great deal of material has been published on the natural resource management issues facing the Peel-Harvey Catchment and anyone wishing to undertake further research is encouraged to seek out this material. The best local source of such material is the website of the Peel Centre for Water Excellence which can be found at "www.peelwater.com".

The Peel-Harvey Catchment Council's vision for the future includes the shared view of the community, as expressed in the draft *South West Regional Strategy for Natural Resource Management*, that the South West of WA is a region where a diversity of sustainable activities encourages prosperous life opportunities through a healthy and resilient environment. In Particular the Peel-Harvey Catchment Council has adopted a vision of 'People Working Together for a Healthy Environment'.

3. Peel Harvey Action Plan in the Regional Context

This document is an Action Plan for Natural Resource Management in the Peel-Harvey Catchment that fits within, and is part of, the implementation framework provided by the South West Catchments Council in its draft *South West*

Regional Strategy for Natural Resource Management. Subject to funding the Action Plan will deliver specific and achievable outcomes through a 5-year implementation program based on priority issues identified in the subregional framework chapter of the draft *Regional Strategy for Natural Resource Management* on the Peel-Harvey subregion.

The Action Plan is structured to relate to the following five 25-year Goal Areas identified in the draft *Regional Strategy for Natural Resource Management*:

- Conservation of Natural Resources;
- Sustainable Resource Use;
- Integrated Planning and Management;
- Research and Monitoring; and
- Community Development.

The first two of these 25-year goal areas are outcomes and the last three are processes to achieve those outcomes.

The draft *Regional Strategy for Natural Resource Management* then provides a list of objectives under each of the five 25-year goal areas. The objectives that are relevant to the Peel-Harvey Catchment have been identified in the Action Plan along with the 10 priority program areas that require action to achieve a sustainable future for the Peel-Harvey Catchment. The 10 priority programs, while in no order of priority themselves, have been called:

- Living Streams;
- Wonderful Wetlands;
- Living Land Management;
- Living Clean and Green;
- Allocating Water Resources;
- Salinity Management;
- Planning Living Landscapes;
- Evaluating Progress;
- Supporting Communities; and
- A Communicative Catchment.

Community Landcare Centres and LCDCs hold the plans for on-ground activities in their zones of the subregion and the on-ground activities of the many landcare groups in the catchment. They monitor progress with implementation of those plans and their activities are reported each year in an annual report prepared by the Department of Agriculture. The Peel-Harvey Catchment Council together with this Action Plan has the role of supporting and assisting those Landcare Centres and their army of volunteers. In particular the Peel-Harvey Catchment Council must work with the Landcare Centres to ensure consistency between plans at the zone level and the subregional level and note geographically where such plans have yet to be prepared.

4. Release and review of the Peel-Harvey Action Plan

This Action Plan is designed to be a living document that is adjusted as necessary when new information becomes available. Initially this means at the end of a six week period of public comment following release of the Action Plan. Eventually this means that as soon as practicable after the expiry of 5 years from the release of the Action Plan a complete public review of the Plan will be undertaken.

Please submit your comments before 28 June 2002 to:

Executive Officer
Peel-Harvey Catchment Council
PO Box 332
MANDURAH WA 6210

25-year Goal Areas	Key SWCC Objectives for Peel	Priority Programs
<p>A Conservation of Natural Resources <i>Biological diversity, natural resources and a range of representative functioning ecosystems are valued, conserved, restored and managed in perpetuity by the whole community</i></p>	<p>A1 Ensure the protection, conservation and restoration of biodiversity and natural resources. <i>Strategies A1.1-A1.6</i></p> <p>A3 Protect and enhance waterway health and water quality. <i>Strategies A3.1-A3.6</i></p> <p>A4 Protect and enhance the quality and stability of the coastal environs. <i>Strategies A4.1-A4.2</i></p>	<ul style="list-style-type: none"> ▪ Living Streams ▪ Wonderful Wetlands
<p>B Sustainable Resource Use <i>Sustainable multiple-use of natural resources supports profitable enterprises that protect social and ecological values</i></p>	<p>B1 Use land resources for the most sustainable and productive use within its capability and suitability. <i>Strategy B1.1</i></p> <p>B3 Manage sustainable use of water resources to preserve a range of future options. <i>Strategy B3.1-B3.2</i></p> <p>B4 Minimise the impacts of flooding through understanding catchment hydrological processes and implementing sustainable landuse and drainage practices. <i>Strategies B4.1-B4.3</i></p> <p>B6 Improve waste management and energy efficiency. <i>Strategy B6.1</i></p>	<ul style="list-style-type: none"> ▪ Living Land Management ▪ Living Clean and Green ▪ Allocating Water Resources ▪ Salinity Management
<p>C Integrated Planning <i>Cooperative regional planning fully integrates environmental, social and economic considerations in the decision-making process to maintain a productive landscape underpinned by viable natural systems</i></p>	<p>C2 Achieve coordinated regional planning and management to align government, community and industry objectives, resources and timeframes. <i>Strategies C2.1-C2.5</i></p> <p>C5 Support local government involvement in NRM as a key partner. <i>Strategies C5.1-C5.7</i></p>	<ul style="list-style-type: none"> ▪ Planning Living Landscapes
<p>D Research and Monitoring <i>Knowledge of natural resources and monitoring of changes to sustainability, supports informed decision-making and action by all regional stakeholders</i></p>	<p>D1 Promote research and development to improve understanding and management of the values, pressures and status of natural resources in the region. <i>Strategies D1.1-D1.2</i></p> <p>D2 Achieve agreed regional targets and monitoring for sustainability. <i>Strategies D2.1-D2.62</i></p>	<ul style="list-style-type: none"> ▪ Evaluating Progress
<p>E Community Development <i>The South West community has a good understanding of the values and attributes of natural resources, the capacity to undertake management and the opportunities to influence decision-making and outcomes</i></p>	<p>E1 Support community involvement in decision-making, planning and action for NRM. <i>Strategies E1.1-E1.3</i></p> <p>E2 Increase the skills, capacity and knowledge of the community to sustainably manage natural resources. <i>Strategies E2.1-E2.40</i></p>	<ul style="list-style-type: none"> ▪ Supporting communities ▪ A communicative catchment

Priority Program 1 - Living Streams

Goal Area A – Conservation of natural Resources

Rationale

Virtually all the waterways of the coastal Peel-Harvey Catchment are a reflection of human intrusion onto the landscape. Constructions of drains, de-snagging systems, accelerated erosion and downstream siltation and eutrophic conditions creating algal blooms are common throughout the coastal catchment. These have had a great impact on biodiversity in the catchment. For the sake of biodiversity and its associated benefits for tourism and fishing industries, and for the recreational opportunities afforded by the catchment, there is a need to restore many of our waterways to living stream conditions.

Aim

Restoration and enhancement of waterways throughout the Peel-Harvey Catchment.

Current Initiatives

There is a major project underway in the Shire of Serpentine-Jarrahdale called the “Dirk Brook Project” which is looking at a number of drain management practices. Similarly in the Harvey River a \$750,000 Trust has been established to increase the riparian habitat available in the Harvey River system as a result of inundation higher in the catchment from expansion of the Harvey Dam. The need for improved riparian management in the Murray River was highlighted in a PIMA/Water and Rivers Commission publication released in January 2002 looking at recreational and economic development opportunities in the Peel Waterways.

Action Required

1. Increase indigenous riparian vegetation and riparian and aquatic biodiversity by streamlining many more kilometres of waterways to replace riparian values and reduce sediments and nutrients entering aquatic systems. Landcare groups have been actively engaged in streamlining for a number of years now but many in the community are at their full capacity and are unable to take on more river restoration works.
2. Establish maintenance programs for the restoration activities conducted on Crown Land.
3. Assess the drainage system within the catchment to determine current required conveyance capacity and compare that against current conveyance capacity, the impact of streamlining on conveyance and determine ideal streamlining design for the drainage system.
4. The Water Corporation undertakes drain management works and by incorporating restorative actions within their work programs in partnership with the community, the capacity of this program could be significantly enhanced.
5. As well there is a general need to greatly increase community support in the catchment.

Additional Resources Required

1. Rivercare project coordinators as well as funds for undertaking works on the Murray (upper and lower) and Serpentine Rivers.
2. Technical Officers to provide the engineering background to balance the ecological and water conveyance roles of the waterways.
3. Government agencies to provide financial and human resources to assist with and maintain restoration work undertaken on waterways through Crown Land vested in those agencies.

Key Partners

Peel-Harvey Catchment Council
Local Government
The Department of the Environment, Water and Catchment Protection
Water Corporation
South West Irrigation
LCDCs
Landcare Groups
Landholders

Priority Program 2 - Wonderful Wetlands

Goal Area A – Conservation of Natural Resources

Rationale

The Peel-Harvey Coastal Plain was once a broad chain of rich wetlands, many of which have since been drained or radically altered in rural and urban development processes, though there are many wetlands remaining of high and moderate conservation value.

Aim

To restore and protect wetlands of conservation and resource enhancement significance across the Peel-Harvey Coastal Plain Catchment.

Current Initiatives

Wetland policy on the coastal plain is driven by the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992*. At a local level there are many individual initiatives to restore and protect wetlands on rural properties though support for undertaking these works is inconsistent and not well targeted.

Action Required

1. Establish an extension and support program for wetlands on the Peel-Harvey Coastal Plain in a targeted fashion in conjunction with landholders. This would increase landholder awareness and valuing of wetlands through developing wetland restoration support networks for landholders, preparing and providing wetland restoration information, and through developing and providing wetland protection support for local landholders.
2. Review of the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* needs to be completed to provide a current policy to support and protect wetlands in the catchment.

Additional Resources Required

1. A wetlands officer

Key Partners

Peel-Harvey Catchment Council
The Department of the Environment, Water and Catchment Protection
Local Government
Landholders
LCDCs

Priority Program 3 - Living Land Management

Goal Area B – Sustainable Resource Use

Rationale

The Peel-Harvey Catchment has been over cleared from a terrestrial biodiversity point of view. Terrestrial biodiversity has scored highly in issues facing the Peel-Harvey, as identified through the consultation processes. In addition to direct habitat reduction through clearing, there are biodiversity issues for the catchment caused by weeds and feral animals. Our rural industries are accepting that there is now an added dimension to the emerging problems in the catchment. There are widespread soil problems including salinity, acidification and structural decline. The catchment is also facing some critical water problems including the deterioration of surface water quality, many of which can be attributed to the decreasing biodiversity being experienced.

Aim

To protect, enhance and restore biodiversity values across the Peel-Harvey landscape.

Current Initiatives

There are numerous examples of on-ground activities being undertaken by landholders, both public and private, throughout the catchment. This work requires continuous support.

Action Required

1. Enhance and restore terrestrial vegetation and habitats through the protection of remnant vegetation, reduction of the numbers of feral animals, particularly foxes and rabbits, and through improved weed management on public and private lands.
2. Integrate sustainable agricultural production with biodiversity values.
3. Encourage partnerships and positive relationships between our rural industries, agency and landcare bodies that will collectively seek to assess, understand and develop effective management strategies for natural resource management.
4. Increase technical and general support for the volunteers undertaking landcare work.
5. Provide Local Government with the capacity to protect and enhance terrestrial vegetation on the reserves for which they are vested with management responsibility.

Additional Resources Required

1. A Communications Officer to provide catchment wide education and awareness raising information and to support the work of the landcare centres in providing advice and direction to landcare volunteers.
2. Additional Community Support Officers.
3. Increased funding support for on-ground landcare activities.

Key Partners

Rural landholders
Local Governments
Department of Conservation and Land Management
Agriculture Protection Board
Other agency landholders (Water Corporation, Westrail, etc.)

Priority Program 4 - Living Clean and Green

Goal Area B – Sustainable Resource Use

Rationale

The Peel-Harvey Catchment is an important part of agricultural and industrial production systems. The close proximity of its lower catchment to Perth and its natural attractions also makes it a desirable place for people to live but the pressures of urban living and industry impact upon the waterways. While there is an ongoing need for economic production and development within the Peel-Harvey Catchment because of the enormous benefits for the whole community, measures need to be taken to ensure the sustainability of production systems and to minimise their impact on the local landscape and externally.

Aim

To ensure the sustainability of Peel-Harvey production systems and urban lifestyles.

Current Initiatives

The Department of Agricultural and Alcoa have been working on the use of bauxite residue as a soil amendment. A number of other soil amendments have been explored for the area. These have and hold great potential for reducing nutrient loading from broad scale and intensive agricultural land uses. The State and some Local Governments have promoted water sensitive urban design for some time. Some projects have been undertaken with mixed success. The Shire of Serpentine Jarrahdale has a successful example of the application of water sensitive urban design where drainage run-off from an urban development does not go straight into the drainage system but is retained on site to filter out nutrients and return the water to the underground catchment.

Action Required

1. Promote and encourage increased use of soil amendment technologies, particularly in areas of low phosphorus retention soils, to reduce nutrient losses from urban and broadacre and intensive farming practices.
2. Investigate in cooperation with agricultural industry improved grazing management practices that will control water and nutrient flow through the soil profile.
3. Encourage the development of delivery information on biological system risk management.
4. In cooperation with the livestock industries, encourage the development of objective methods to integrate improved natural resource management strategies into grazing systems.
5. Encourage rural and urban industry to operate to a high environmental standard on a continuing improvement basis and promote cleaner production technologies in conjunction with key industries and industry groups.
6. Assist in the gathering of concise data and information about the nature of current and emerging vegetation, land and water degradation problems and their effects that can be fed back to our rural industries for the purpose of strategic planning in new programs.
7. Increase public awareness of the impact of urban and rural behaviour on waterways.
8. Encourage the development of new, sustainable industries suited to local soil types and climatic patterns.

Additional Resources Required

1. Cleaner Production Coordinator and funding for encouraging cleaner production projects.

Key Partners

The Department of the Environment, Water and Catchment Protection
Industry Groups
Farmers Groups
Individual and industrial producers
Department of Agriculture

Priority Program 5 - Allocating Water Resources

Goal Area B - Sustainable Resource Use

Rationale

Tributaries to the Peel-Harvey Estuary have been extensively dammed for human and agricultural consumption of water. There is a need for setting environmental water provisions and allocation plans, particularly for the Serpentine, Dandalup and Harvey River systems.

Aim

To develop a sound basis for water allocation within the Peel-Harvey Catchment.

Current Initiatives

Some planning work has been done on environmental water requirements and provisions although this work is not fully complete for most of the Peel-Harvey Catchment. More work has been done for the Harvey River although the perceived provisions need to be tested in practice.

Action Required

1. Develop environmental water requirements and provisions for the key catchment areas.
2. Develop allocation plans for key water resources in consultation with affected landowners.
3. Encourage more effective water use practices amongst farmers and investigate the potential of, and the most appropriate methods of water harvesting in the catchment.

Additional Resources Required

1. The Department of the Environment, Water and Catchment Protection to allocate resources to complete a development plan for setting environmental water requirements and provisions and to progress an allocation plan.

Key Partners

The Department of the Environment, Water and Catchment Protection
Water Corporation
South West Irrigation
Landholders

Priority Program 6 - Salinity Management

Goal Area B – Sustainable Resource Use

Rationale

The upper Murray catchment area, including the Hotham and Williams Rivers, is subject to salinity issues similar to many other extensive farming areas in southern Western Australia. These issues need to be dealt with through production systems and broad landscape management if salinity issues are to be adequately managed. The Murray River is already under some stress from salinity at certain periods of the year. Due to the heavy soil types of the Coastal Plain, the coastal area of the catchment is also identified as being at high risk.

Aim

1. Prevent, stabilize and reverse trends in dryland salinity affecting agricultural production, conservation of our unique environment and community assets (such as houses, roads etc).
2. Improve water quality and secure reliable water supplies for human, agricultural and industrial uses and for the environment.

Current Initiatives

One initiative is the 'perennial pastures' project undertaken by the landcare centres and the Department of Agriculture in association with landholders and Ever Green Farming Inc. The project aims to achieve sustainable green farms all year round to increase farm profitability and also combat water-logging, salinity and erosion. Another initiative is the Western Power Greening Challenge tree-planting program.

Action Required

Work with landowners, relevant State agencies, and the Commonwealth Government in implementing the *National Action Plan for Salinity and Water Quality* (NAP). Action required under the NAP includes:

- Setting catchment targets and standards for water quality and salinity.
- Mapping of areas affected by salinity.
- Development of production systems suited to salt affected areas.

Additional Resources Required

A package of technical, scientific and information support to landowners to be developed with extension support provided.

Key Partners

Landowners
Department of the Environment, Water and Catchment Management
Department of Agriculture
Local Governments
LCDCs

Priority Program 7 - Planning Living Landscapes

Goal Area C – Integrated Planning

Rationale

The Peel-Harvey landscape is undergoing rapid change through both urbanisation and significant adjustments to traditional rural economies and industry. That development is controlled through the land use planning tools of eighteen Local Governments, and three State Government regional planning schemes.

Aim

To ensure that land use planning allows for economic and social development of the Region while minimising its ecological impacts and assisting in the restoration of natural values to the Peel-Harvey Catchment.

Current Initiatives

The *South West Regional Strategy for Natural Resource Management* and the *Peel-Harvey Action Plan* are in draft form. Also in draft form are the WA Planning Commission's *Peel Region Scheme* and *Statements of Planning Policy* on the environment and natural resource management. The Statements of Planning Policy will require the regional NRM Strategy and the subregional Action Plan to be considered in the Region Scheme. When finalising all of these documents, the relationships between each of them must not be overlooked.

Action Required

1. Review regional and local town planning schemes and planning strategies to ensure that they include, in an appropriate way, the draft *South West Regional Strategy for Natural Resource Management* and the draft *Peel-Harvey Action Plan*.

Additional Resources Required

1. Short-term consultancy to:
 - (a) Work with the relevant planning agencies; and
 - (b) Review regional and local town planning schemes and planning strategies to ensure that they include, in an appropriate way, the draft *South West Regional Strategy for Natural Resource Management* and the draft *Peel-Harvey Action Plan*.

Key Partners

Peel-Harvey Catchment Council
Department for Planning and Infrastructure
Department of the Environment, Water and Catchment Protection
Local Governments

Priority Program 8 - Evaluating Progress

Goal Area D – Research and Monitoring

Rationale

In order to make sound investment decisions, clear targets and milestones for environmental improvements need to be identified and monitoring programs established.

Aim

To develop a long-term monitoring and evaluation program for evaluating the success of catchment management initiatives.

Current Initiatives

Amongst other initiatives being undertaken in the catchment on monitoring and evaluation programs, the City of Mandurah is working on environmental indicators as part of its Agenda 21 program. The Department of Agriculture has a project underway to set monitoring targets for the a number of southern catchment regions.

Action Required

1. Identify key sustainability indicators for the catchment; ensure appropriate monitoring to enable key indicators to be measured, and initiate regular reporting against key indicators.

Additional Resources Required

1. An Evaluation and Monitoring Officer who can support existing projects and establish new ones that help monitor the health of the catchment.

Key Partners

Local Governments
State Government agencies
Broader community
Affected community groups
Sustainability Group in the Premier's Department

Priority Program 9 - Supporting Communities

Goal Area E – Community Development

Rationale

Community support for natural resource management action needs to be in turn supported through coordination, extension and technical functions. Many of these can be delivered through community based operating mechanisms, though again these need supporting resources and infrastructure.

Aim

To ensure adequate community support for natural resource management activities.

Current Initiatives

There are currently community landcare centres established in Mundijong, Rockingham, Wandering, Waroona and Williams through a number of NHT projects.

Action Required

1. Ensure the continuing presence of community support officers within the Peel-Harvey Catchment.
2. Continue development of community landcare centres to adequately cover the Peel-Harvey Catchment.
3. Ensure that effective links are being maintained with the major rural industry bodies to facilitate the integration of sustainable farming systems throughout the catchment.

Additional Resources Required

1. Additional Community Support Officers located in community landcare centres.
2. Environmental Officers located in those Local Governments within the catchment that do not already have such officers.
3. Specialist Bushcare, Coastcare, Landcare, & Rivercare support officers to assist landcare centres.

Key Partners

Landcare Centres
Landcare groups
LCDCs
Coastcare groups
Government agencies
Local Government
Industry

Priority Program 10 - A Communicative Catchment

Goal Area E – Community Development

Rationale

There is a large amount of activity underway in the Peel-Harvey Catchment and there needs to be mechanisms to communicate between groups and to the wider community the actions being undertaken to improve catchment and natural resource management within the Peel-Harvey Catchment and to share learning outcomes.

Aim

To ensure sound communication between resource management sectors and operatives within the Peel-Harvey Catchment.

Current Initiatives

As one example of the various current methods of communicating progress on projects and activities, a newsletter is published by the Crossing the Boundaries project as well as ad hoc communications of their activities through newspapers and community newsletters.

Action Required

1. Develop a communication plan.

Additional Resources Required

1. Funding for newsletter production and coordination for communication activities.

Key Partners

Landcare Centres
Landcare groups
LCDCs
Government agencies
Local Governments
Other interest groups such as RECWEST

Section C - 5 Year Implementation Program

This 5 Year Implementation Program is an amalgamation of the required actions and resources identified in Priority Programs covered in Section B of this document. The required actions and resources are not further prioritised as part of this Action Plan because that action will be part of the ongoing process of assessment of agency budgets and grant applications during the 5 year implementation period.

Priority Programs Action Required

1. Increase indigenous riparian vegetation and riparian and aquatic biodiversity by streamlining many more kilometres of waterways to replace riparian values and reduce sediments and nutrients entering aquatic systems.
2. Establish maintenance programs for the restoration activities conducted on Crown lands.
3. Assess the drainage system within the catchment to determine current required conveyance capacity and compare that against current conveyance capacity, the impact of streamlining on conveyance and determine ideal streamlining design for the drainage system.
4. The Water Corporation undertakes drain management works and by incorporating restorative actions within their work programs in partnership with the community, the capacity of this program could be significantly enhanced.
5. Increase community support and capability in the catchment.
6. Establish an extension and support program for wetlands on the Peel-Harvey Coastal Plain in a targeted fashion in conjunction with landholders. This would increase landholder awareness and valuing of wetlands through developing wetland restoration support networks for landholders, preparing and providing wetland restoration information, and through developing and providing wetland protection support for local landholders.
7. Review of the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* needs to be completed to provide a current policy to support and protect wetlands in the catchment.
8. Enhance and restore terrestrial vegetation and habitats through the protection of remnant vegetation, reduction of the numbers of feral animals, particularly foxes and rabbits, and through improved weed management on public and private lands.
9. Integrate sustainable agricultural production with biodiversity values.
10. Encourage partnerships and positive relationships between our rural industries, agency and landcare bodies that will collectively seek to assess, understand and develop effective management strategies for natural resource management.
11. Increase technical and general support for the volunteers undertaking landcare work.
12. Provide Local Government with the capacity to protect and enhance terrestrial vegetation on the reserves for which they are vested with management responsibility.
13. Promote and encourage increased use of soil amendment technologies, particularly in areas of low phosphorus retention soils, to reduce nutrient losses from urban and broadacre and intensive farming practices.
14. Investigate in cooperation with agricultural industry improved grazing management practices that will control water and nutrient flow through the soil profile.
15. Encourage the development of delivery information on biological system risk management.
16. In cooperation with the livestock industries, encourage the development of objective methods to integrate improved natural resource management strategies into grazing systems.
17. Encourage rural and urban industry to operate to a high environmental standard on a continuing improvement basis and promote cleaner production technologies in conjunction with key industries and industry groups.
18. Assist in the gathering of concise data and information about the nature of current and emerging vegetation, land and water degradation problems and their effects that can be fed back to our rural industries for the purpose of strategic planning in new programs.
19. Increase public awareness of the impact of urban and rural behaviour on waterways.
20. Encourage the development of new, sustainable industries suited to local soil types and climatic patterns.
21. Develop environmental water requirements and provisions for the key catchment areas.
22. Develop allocation plans for key water resources in consultation with affected landowners.
23. Encourage more effective water use practices amongst farmers and investigate the potential of, and the most appropriate methods of water harvesting in the catchment.
24. Work with landowners, relevant State agencies, and the Commonwealth Government in implementing the *National Action Plan for salinity and water quality*. Action required under the NAP includes:
 - Setting catchment targets and standards for water quality and salinity.
 - Mapping of areas affected by salinity.
 - Development of production systems suited to salt affected areas.
25. Review regional and local town planning schemes and planning strategies to ensure that they include, in an appropriate way, the draft *South West Regional Strategy for Natural Resource Management* and the draft *Peel-Harvey Action Plan*.
26. Identify key sustainability indicators for the catchment, ensure appropriate monitoring to enable key indicators to be measured, and initiate regular reporting against key indicators.

27. Ensure the continuing presence of community support officers within the Peel-Harvey Catchment
28. Continue development of community landcare centres to adequately cover the Peel-Harvey Catchment
29. Ensure that effective links are being maintained with the major rural industry bodies to facilitate the integration of sustainable farming systems throughout the catchment.
30. Develop a communication plan.

Additional Resources Required

1. Rivercare Project Coordinators as well as funds for undertaking works on the Murray (upper and lower) and Serpentine Rivers.
2. Technical Officers to provide the engineering background to balance the ecological and water conveyance roles of the waterways.
3. Government agencies to provide financial and human resources to assist with and maintain restoration work undertaken on waterways through Crown land vested in those agencies.
4. A Wetlands Officer.
5. A Communications Officer to provide catchment wide education and awareness raising information and to support the work of the landcare centres in providing advice and direction to landcare volunteers.
6. Additional Community Support Officers.
7. Increased funding support for on-ground landcare activities.
8. Cleaner Production Coordinator and funding for encouraging cleaner production projects
9. The Department of the Environment, Water and Catchment Protection to allocate resources to complete a development plan for setting environmental water requirements and provisions and to progress an allocation plan.
10. A salinity management package of technical, scientific and information support to landowners to be developed with extension support provided.
11. Short-term consultancy to:
 - (a) Work with relevant planning agencies; and
 - (b) Review regional and local town planning schemes and planning strategies to ensure that they include in an appropriate way the draft South West Regional Strategy for Natural Resource Management and the draft Peel-Harvey Action Plan.
12. An Evaluation and Monitoring Officer who can support existing projects and establish new ones that help monitor the health of the catchment.
13. Environmental Officers located in those Local Governments within the catchment that do not already have such officers.
14. Specialist Bushcare, Coastcare, Landcare, & Rivercare support officers to assist landcare centres.
15. Funding for newsletter production and coordination for communication activities