

# WARREN CATCHMENTS COUNCIL STRATEGIC PLAN

2011 – 2015



electronic version

September 2011



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## Foreword

This natural resource management strategy for the Warren sub-region takes us from where our 2007-2011 plan finished, outlining updated ways forward in managing our environmental resources using a community-based and community-driven approach.

The Warren Catchments Council (formerly the Manjimup LCDC) has been operating for over 20 years and has many achievements. Since Stuart Taylor, our first landcare officer, helped the local cauliflower and potato industry to care for their paddocks while not reducing production, and Ben Rose from the Department of Agriculture & Food WA introduced soil and fertiliser management systems to the region, the WCC has become an important part of the Warren sub-region's community.

Following on from this initial spark, landcare officers and NRM professionals have helped steer the WCC into the present day. Officers such as Mark Paganini and Mark Angeloni continued our tradition of supporting land users and farmers by finding funding to carry out projects including stock exclusion fencing, a specialist landcare equipment lending system, water and catchment monitoring programs, weed eradication and awareness, environmental education sessions and tree planting.

In more recent times the Commonwealth and state focus and funding guidelines have required a more holistic approach, supporting efforts to protect and conserve biodiversity. Management of pests and weeds affecting natural resources and impacting on farmers livelihoods has also been addressed. Neil Pemberton-Ovens, Emily Lewis and Mark Sewell have, in turn, worked to steer WCC through this phase of our history.

With this growth and direction the group has employed a kaleidoscope of on-ground project officers including Andy Russell, Lee Fontanini, Keith Liddlelow, Jenni Munro, Carrie Doncon, Jeremy Purdy, Kathy Dawson, Andrew Pound, Scott Mapley, - **and I'm sure there are others.**

Presently a new focus has been set for NRM groups by the Australian government that has somewhat limited the scope of funds we are able to attract. The relatively good condition of our local natural and modified environments has lessened our funding opportunities. This latest time of funding uncertainty also brings new challenges.

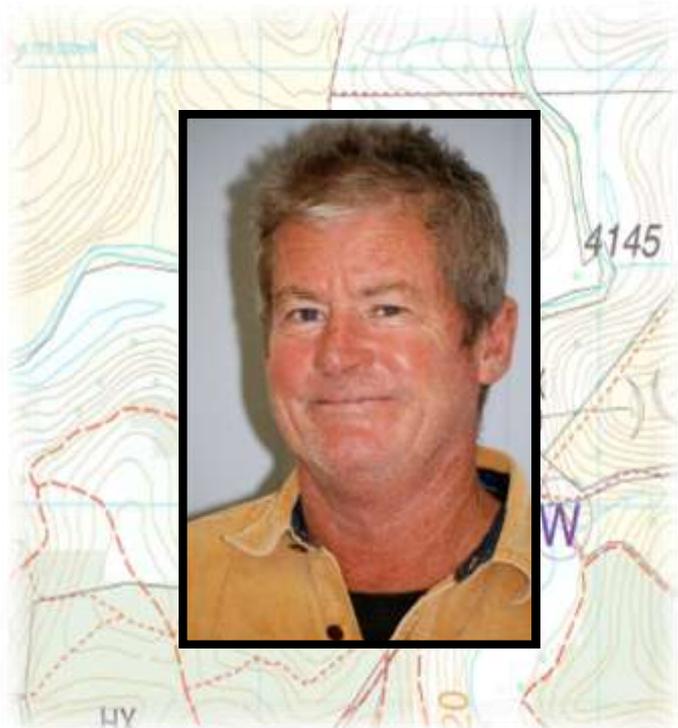
This updated set of NRM guidelines will be the **Warren community's tool to direct further effort** in natural resource management in the Warren area during the next five years.

Once again I thank everybody who has contributed to updating this strategy. I am very impressed by the effort of all involved and the various government agency representatives who gave time to help update this document .

I look forward to working with our dedicated team to continue to inform and act to protect our part of the **world's natural systems.**



Paul Owens  
Chairman, WCC  
September 2011



## Acknowledgements

The Warren Catchments Council acknowledges the contribution made by the community of the Warren sub-region and also the stakeholders from outside the sub-region in the development of this strategy. In particular we acknowledge the assistance of the current and past members of the Warren Catchments Council as well as others who have provided their wealth of experience in NRM in the Warren sub-region, and past and present employees of the Warren Catchments Council.

Members of the Warren Catchments Council Committee, 2011:

Paul Owens	Chairman
Patrick Pemberton	Deputy Chair
Peter Beatty	Secretary & Treasurer
Michael Gill	elected Community Committee member
Gail Henderson	elected community Committee member
Julian Sharpe	elected Community Committee member
Peta Richards	DAFWA representative
Ian Wilson	DEC representative
Felicity Bunny	DOW representative
Cr Lynn Daubney	Shire of Manjimup representative

Thanks is particularly extended to those who have attended workshops and provided feedback in various forms including the many emails, telephone calls and meetings in person, all of which have been valuable in getting the strategy to its final form.

We acknowledge with gratitude the contribution made by locally-based officers of the State government agencies who have contributed to this strategy, including those from the Department of Environment and Conservation, Department of Agriculture and Food, Department of Water and the Forest Products Commission.

We are also grateful to Councillors and staff of the Shire of Manjimup for their contributions, both in developing the views of this strategy and for their significant ongoing support across many of our activities.

Finally, we thank the South West Catchments Council for their significant financial support of our work to compile and produce this strategy.



## Indigenous Statement

*(The Indigenous Statement of the South West Catchments Council has been adopted by the Warren Catchments Council for use in this strategy.)*

As the traditional custodians of this land, the Nyungar people existed for tens of thousands of years in relative harmony with the land, the sea, the waters, the sky and the plant and animal inhabitants therein.

Caring for country is at the heart of traditional lore – the spiritual, cultural and physical being of the Nyungar people.

The need to care for country - to give as much as we take - is a powerful lesson for all. It is a lesson that has taken us all many years to begin to come to terms with.

Many people of the South West now recognise the need to repair the damage of the past and to begin to think and live in a more holistic relationship with the land, the sea, the waters, the sky and their inhabitants.

To do this most effectively however, Indigenous and non-Indigenous cultures must genuinely engage with **each other and learn from each other's experience and knowledge.**

Reconciliation is a word often used by activists, leaders, diplomats and politicians from all walks of life. But while words are extremely important in beginning the journey, the real challenge that lies ahead is for us to act on them.

The SW region recognises the value of involving Nyungar people at all levels of natural resource management, from policy to on-ground action. The greatest chance we have to once again care for country – so that it may in turn care for us and future generations – is to work together.



## Preamble

The Warren sub-region is essentially no different to any other region of Australia and for that matter the world.

**Increased anthropogenic pressures are causing a rapid decline in the health of the world's natural assets and biodiversity.**

**'Big picture' issues such as global warming and increased population are causing a rapid decline in environmental health and biodiversity.**

At a local level there are countless issues threatening both natural environments and productive land areas.

Issues such as climate change will see a predicted decrease in rainfall and surface water runoff of up to 39% in the Warren sub-region according to the CSIRO (SW Sustainable Yields Project).

Salinity - another big picture issue - has already affected large areas of the sub-region's **low rainfall** productive land zones. It is estimated that up to 25% of these catchments are threatened by salinity. Salinity is also threatening the quality of public drinking water resources flowing from these catchments.

Speaking at the 15th Australasian Vertebrate Pest Conference Sydney in 2011, Dave Choquenot of the Centre for Biodiversity and Biosecurity, University of Auckland, suggested that to maintain present levels of global biodiversity we need to increase present day investment by up to twenty-five times. Present rates of NRM investment globally will only slow decline rates by up to 4%; however such investment will still see a decrease in the biodiversity and quality of our natural assets.

It therefore becomes very important that the WCC maintains an active role in the NRM field to help lessen the effects of these declines to our environment.

At present, a decrease in Warren sub-region NRM investment has reduced the activities of the WCC. As a result, the WCC will have to implement efficient targeting and a focused attack on the local threats.

Along with this, the WCC will need to continue to work with local community and government agencies to help secure the natural assets of our region and help rescue species and components of our environment for the future.



## Profile

The Warren sub-region is in the southwest corner of Western Australia and forms part of the South West NRM Region.

The Warren Catchments Council is a non-government, not-for-profit organisation that coordinates natural resource management within the Warren sub-region. Its vision is to work with the Warren community to sustain healthy forests, rivers, rural enterprises and aspirations.

The Warren Catchments Council is so-named because there are multiple catchments within the Warren sub-region. These include the Donnelly, Warren, Meerup, Doggerup, Gardner, Shannon and Deep Rivers, of which the Warren is the major, incorporating the Tone, Perup and Wilagarup Rivers.

The Warren sub-region contains some highly prized natural assets, in particular its highly valued waterways and iconic biodiversity. It is equally significant for its highly productive agricultural industry, forestry production and tourism opportunities. Key threats to these assets include land and water degrading processes such as salinity, acidification and erosion, land use conflicts, introduced pests and diseases and climate change.

This strategy covers the entire Warren sub-region and includes the assets of its people and their culture, waterways, water resources, biodiversity, productive land (agricultural and forested), coastal and marine environment, climate, air and mineral resources.

The WCC is a community organisation that works both independently and in partnership with and for the people and natural resources of the Warren sub-region, often in partnership with other organisations.

The WCC provides independent community-driven input to projects and activities being carried out by government agencies, industry bodies or community organisations that may have a narrower focus than that of the WCC. It also develops links between various organisations operating within the Warren sub-region **in order to maximise the benefits of WCC and others' NRM activities. It provides NRM support and advice for landholders and other community members.**

WCC operates as the peak advocate for sustainable NRM and lobbies local, state and federal governments for improved NRM within the Warren sub-region. The key audience of this strategy is therefore intended to be the community of the Warren sub-region; however, it is also expected to be used by other stakeholders such as government and local government agencies, private industry and community members based outside the sub-region.

It is recognised that the Warren sub-region forms one of six sub-regions within the South West NRM region. Consequently it is important for the strategy of the WCC to contribute to and complement those of the South West Catchments Council for the entire region as well as to achieve positive outcomes for both the natural and industrial assets of the Warren sub-region, and of course for its people.

The WCC has a ten person committee made up of community members and state and local government representatives. This structure represents the broad base of NRM involvement in the local community and its surrounding landscapes.

Several part-time staff are employed or contracted by the WCC, including an Executive Officer, two Project Officers and a Ribbons of Blue Coordinator.

## WCC Vision

***“To work with the Warren Community to sustain healthy forests, rivers, coastal environs, rural enterprises and aspirations.”***

## Guiding Principles

The WCC has established a set of guiding principles that govern its decision-making processes. These are:

1. That we recognise the intrinsic value of the natural assets within our landscapes, and we strive to protect, enhance and sustain those values wherever possible.
2. That we provide leadership through encouragement and a proactive, open-minded approach to natural resource management.
3. That we aim to minimise environmental impacts within our sub-region while considering the economic and social aspirations of the Warren community and its visitors.
4. That we are adaptable to change, use the best available knowledge, and continue to learn from our own and others successes and mistakes.
5. That lack of full scientific certainty is not grounds for postponing actions that prevent environmental degradation.
6. That decision making processes are transparent, honest and equitable.
7. That we share information with our stakeholders openly and work in partnership with the community, government and industry.
8. Encourage landholders to seek and utilise assistance available to them in order to achieve best practice natural resource management.
9. That the wider community has the right to be consulted on decisions and actions that affect them.
10. That prime responsibility for the management of natural resources is with landholders within our sub-region, and that we must respect their rights and be mindful of their financial situation.
11. That we recognise the value of diversity within our organisation and the strength that we have by working collectively.



## Information

The Warren sub-region is in the southwest corner of Western Australia and forms part of the South West NRM region. It encompasses the catchments of the Donnelly, Warren, Gardner, Shannon, Weld and Deep River systems as well as the Lake Muir Byenup system.

The whole of the Shire of Manjimup, as well as small portions of the Shires of Boyup Brook, Kojonup, Nannup, Cranbrook and Bridgetown-Greenbushes make up the Warren sub-region.

The majority of the Warren sub-region is within the Shire of Manjimup which covers an area of 7028 km<sup>2</sup>. The population of the Shire, which includes four towns and five settlements, is approximately 10,000.

Department of Environment and Conservation (DEC) estate accounts for approximately 80% of the Manjimup Shire lands; the remaining 20% is ratable land and has generally been cleared for agriculture and horticulture.

A small proportion of land is used for residential or semi-rural purposes.

The key industries for the region are agriculture, viticulture, orchard, aquaculture, horticulture, government services, forestry and tourism.

By far the greatest proportion of the Warren sub-region is made up of the Warren-Denmark Southland Soil Landscape Zone; however it also includes a small part of the Scott Coastal Zone and the Southern Zone of Rejuvenated Drainage to the west and to the north-east respectively.

Key land uses include forestry, agriculture, horticulture, recreation and conservation.

The Warren sub-region enjoys a Mediterranean climate featuring dry, hot summers and cool winters. Most of the annual rainfall occurs between the months of May and September each year. Average annual rainfall across the sub-region ranges from approximately 530 mm at Kojonup to over 1200 mm at Pemberton.





## Assets

*This section of the strategy describes the sub-region's natural assets and lists their identified iconic sites and the major local action groups (LAGS) involved in management and on-ground actions.*

- Waterways

The Warren sub-region has approximately 41 major streams and rivers which feed into the three major rivers: the Donnelly River, Warren River and Shannon River.

These waterways are also used intensively in agriculture/horticulture and recreation activities.

Most are recognised as being in pristine condition with unique biodiversity, having innate value as wilderness and hosting important natural processes, providing important freshwater habitat for a variety of aquatic flora and aquatic fauna, often unique to the area. River estuaries are important for bird and fish species.

The Warren River suffers serious salinity and is a Recovery Catchment under the WA Salinity Action Plan.

*LAGS: DOW, WRT, Warren Ribbons of Blue, Wilgarup Catchment Group, Upper Lefroy Catchment Group, MWAG.*

*Identified icons: Warren River, Deep River, Shannon River, freshwater streams, ground water.*



- Water resources

With rainfalls ranging from 650 mm to 1400mm, water as a resource has many uses and issues.

The Warren River has an annual flow 290 billion litres; its tributaries supply all of the local town water supplies. All of these supplies are under pressure due to rainfall decreases, increased demand and water quality issues. Surface and ground water systems in the Warren sub-region are harvested for agriculture, horticulture, livestock, irrigation, aquaculture, hydro power, household use, drinking and recreation. Throughout the sub-region rainwater is privately harvested for general household and gardens uses. Other catchment issues include polluted stormwater, greywater management, sewerage systems, **'waterwise' education and efficiency, and irrigation dam licensing systems.**

*LAGS: Water Corporation, DOW, Shire of Manjimup.*

*Identified icons: Big Brook dam, Farm dams, town water supplies, groundwater systems, water quality.*

- **Productive land**

Although less than 20% of the sub-region is private property, there are approximately 1800 rural properties in the area.

This land produces a diverse range of products ranging from vegetable crops and sub-tropical fruit in the higher rainfall zones to dryland crops such as canola and barley in the upper catchment (drier) zone.

Crops and produce include avocados, truffles, stone fruit, pomme fruit, citrus, grapes and wine, potatoes and other vegetables, nuts, dairy, beef and sheep, oats, canola, perennial pastures, forest products, marron and trout.

A variety of farming systems are used such as pasture cropping, intensive irrigation, centre-pivot irrigation, aquaculture, biodynamics, organics, permaculture and biochar.

*LAGS: DAFWA, DOW, Shire of Manjimup, MWAG.*

*Identified icons: soils, dryland farming, salt lands, stock animals, forest plantations.*



- **Lakes and Wetlands**

The Warren sub-region contains a diverse range of lake and wetland systems that include salt lakes, coastal lakes, pristine freshwater forested lakes and wetland systems.

All have important values that include biological processes, degree of interconnection, freshwater quality, water/nutrient filter systems, migratory bird habitat, general habitat and refuge for aquatic and terrestrial flora and fauna. The Lake Muir Byenup System is a listed Ramsar site. Human uses of these assets include recreation and environmental education.

The main issues include disturbances by humans, farm stock, feral animals, weeds, clearing, salinity, Acid Sulphate Soils (ASS).

*LAGS: DEC, Warren Environment Group, WRT.*

*Identified icons: Lake Jasper, Lake Muir/Unicup, Lake Maringup (Mottram), Wilgarup Lake (Phillips), coastal lakes.*

- Coast

The great majority of the sub-region's coast falls within D'Entrecasteaux National Park. Within this area are a variety of coastal lakes, inlets, river estuaries, cliffs and dune systems. All contribute to the area's unique natural beauty and wilderness values. Only two areas have permanent development: Walpole and Windy Harbour.

The coast is popular for local recreation, holidays and fishing. Commercial operations include fishing (including for abalone) and limestone mining at Point D'Entrecasteaux.

Issues include illegal squatters' shacks at the Donnelly River and Broke Inlet, over-fishing, human destruction of habitat, 4WD access, primary dune erosion and wind blowouts, marine debris and sea level change.

*LAGS: DCCG, DEC, Coastwest, Tangaroa Blue, Windy Harbor Lease Holders, Shire of Manjimup, Windy Harbor Sea Rescue, MWAG*

*Identified icons: Black Point Beach, Broke Inlet, Coalmine Beach, mouth of the Doggerup and the Walpole Normalup Inlet.*



- Marine

The marine environment is isolated and wild. The Southern Ocean is pristine and isolated with iconic wind systems such as the 'roaring 40s', the Continental shelf, migrating whale, fisheries and migratory birds.

It has a major effect on our sub-regions weather system – its wind, water cycle, climate and sea levels.

Commercial activities include fishing and seafaring transport routes.

Recreation activities include boating and fishing.

*LAGS: DEC, Tangaroa Blue*

*Identified icons: whales, fish stocks, the still highly-natural quality of the marine environment*

- Biodiversity

The Warren Bioregion has over 1850 vascular plant species, over 70 being endemic.

With this variety of vegetation, the forests, wooded areas, wetlands, and coastal zones support an equally diverse range of flora and fauna, insects, reptiles and sea creatures all of whom rely on the natural environment to survive.

The SW eco-region is **recognised internationally as one of the world's most important 'biodiversity hotspots'**.

New species of plants, insects and other creatures are still being discovered and documented.

Increased population and associated development threaten the survival of many species – with the rate of extinctions increasing continuously.

*LAGS: DEC, NDSG, LMDCFPEG, Northcliffe Environment Centre, MWAG*

*Identified Icons: native fauna, avifauna, native flora, Mt Chudulup, Yeagarup Dunes, granite outcrops, peat swamps, marron, salamanderfish, lamprey eel.*

- Forests

The Warren region is famous for its unique forests that range from high to low rainfall species. They dominate the sub-regions landscape and provide for a healthy environment that maintains ongoing biological processes.

**Most are unique to the area and includes one of the world's tallest trees the Karri (*Eucalyptus diversicolor*).**

Since 2001, WA has preserved all classified Old Growth forests of any species.

The Lower Warren catchment area still has 80% forest cover and approximately half is available for timber production.

*LAGS: DEC, FPC, Warren Environment Group, Warren Community Forest Inspect Committee*

*Identified Icons: karri forest, old growth forests, native forests*



- Recreation/Tourism

The Warren sub-region is promoted as the Southern Forest region and is a major tourism and recreation destination for local, intrastate, interstate and international visitors.

Towns such as Pemberton and Walpole have major tourism infrastructure including accommodation, tours, viewing sites, camp sites, picnic areas, interpretation sites and signs, tracks, trails, railways etc which provides employment for approximately 20% of the workforce and hence is a major component of the economy.

Investment is both private and government - many sites are developed by the Department of Environment and Conservation (DEC).

Tourism and Recreation helps provide social diversity, environmental and land management education platforms and has provided the initiative for preservation, restoration and respect for the natural environment. Major issues include human disturbances and impacts, planning and zoning management.

*LAGS: DEC, Local Visitor Centers,*

*Identified Icons: Bibbulmun Track, Munda Biddi Track, DEC sites*



- Culture

The original inhabitants of the area, the Nyungar people, have a long history in the area and are very active within the community. Their history provides a variety of important Cultural and Heritage Sites.

Non-indigenous people moved into the area in the mid 1850s and since then a mix of urban and rural dwellers have established themselves.

Community members have a history of different origins, settlement eras and are made up of a mix of professions, lifestyles, incomes and aspirations.

The community values local knowledge and expertise and has a diverse mix of active community groups. These are involved in community events and initiatives such as festivals, farmer markets, art exhibitions, music events, agriculture shows, sports events, hydro-energy generation, social awareness and discussion forums.

*LAGS: Walgenup Aboriginal Corporation, Manjimup Historical Society*

*Identified Icons: Indigenous sites, historic sites, farmers' collective knowledge*

## The strategy

***“To work with the Warren Community to sustain healthy forests, rivers, coastal environs, rural enterprises and aspirations.”***

In past years the strategy of the WCC has been constructed and aligned to and around existing funding structures. This is no longer the case.

This WCC strategy identifies the communities’ and the environments’ immediate needs and has created a pathway that aligns major threats with major ‘icons’ that requires an urgent action within each asset.

Within this calculation the WCC has assessed the probability and capacity to achieve an outcome in the scope of this 5 year document. The strategy also takes into account existing or past projects, climate trends and other local actions.

Present funded projects running at time of publication:

- Windy Harbor dune and foreshore protection
- Lake Muir feral pig control
- Northcliffe Declared Species Group feral pig control
- Warren Ribbons of Blue water education program
- Blackberry and Bridal creeper control in the Warren catchment
- Lake Muir Byenup System Ramsar feral vertebrate pest protection
- Woylie protection.

Non-funded activities:

- Support a variety of Local Action Groups (LAGS)
- **Shop front for WCC ‘landcare’ information and support**
- **Lending library of ‘landcare’ equipment and publications**
- Input to local government decision processes
- Networking for community members.

Assumed strategies embedded within this Strategy include:

- Attract an increase in active membership
- Greater promotion of WCC activities within the community
- Increase community support and volunteer base
- Investigate a broad spectrum of funding opportunities
- Strive to increase funding
- Integrate with SWCC strategic plan
- Align with state and federal government NRM priorities
- Increase public communication
- Newsletters and email network communications
- Increase networking on a regional and sub-regional levels
- **Reconnect to past successful ‘Landcare’ actions**
- Develop a business plan.

There has been special consideration for focusing on assets that:

- are in good condition and need a small amount of investment
- are icons that have major issues and need immediate and long term action
- will provide added outcomes which increase the effectiveness of a project
- connect to other project areas: that is, they have connectivity.

Table A shows that most of our local Assets are impacted upon by a common core group of threats. These threats are reducing the value of iconic sites and hence the sub-region's natural assets. Addressing this commonality of threat in this WCC five year strategic plan calls for a holistic and focused approach to natural resource management.

Therefore, the identified WCC Focus Threats in Table B will be the target of strategic action for the WCC for the period 2011 – 2016.

All of the sub-region's iconic sites and focus threats give direction to existing (active or dormant) projects. This direction aides in facilitating efficient and effective outcomes for the Warren community that will help sustain healthy forests, rivers, coastal environs, rural enterprises and community aspirations.

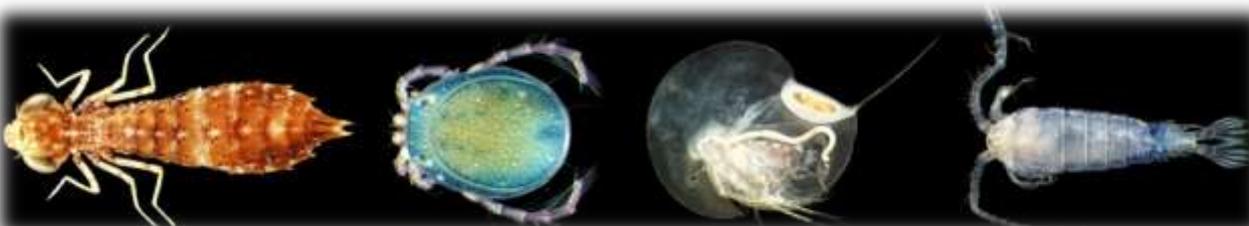


Table A - IDENTIFIED THREATS

ASSET	IDENTIFIED THREATS
Waterways	Salinity, pollution, quality, flows/quantity, climate change, clearing, logging, water extraction, fire management practices, weeds, riparian vegetation degradation, plantations, feral animals, dieback and other pathogens, erosion, human use.
Water Resources	Salinity, pollution, quality, flows/quantity, climate change, clearing, logging, water extraction, riparian vegetation degradation, plantations, erosion, human impact, management, allocation licensees.
Productive Land	Salinity, erosion, water quality, water quantity, fertility, pollution, crop selection, soil structure, dieback and other pathogens, climate, introduced species, weeds, feral animals, clearing, land management practices, fire management practices, fire, human use, pollution, water extraction, dams, urban development, ground cover, erosion, dryland salinity, ASS, acidity, overspray (fertiliser and pesticide), GMO, age of landowners, labour availability, commodity prices, land economics.
Coast	Weeds, rubbish, pollution, recreation, climate change, human use, urban development, degradation of vegetation on river banks, erosion, salinity, plantations, logging, overfishing, commercial fishing, shipping, mining (offshore) and acid sulphate soils (ASS), commercial fishing (nets).
Marine	Pollution, overfishing, commercial fishing, mismanagement, potential off shore mining (oil), shipping.
Lakes	Salinity, pollution, quality, flows/quantity, climate, recreation, Dieback and other pathogens, climate change; introduced species, weeds, feral animals, clearing, land management practices, fire management practices, fire, human use, pollution, water extraction, urban development, degradation of vegetation on river banks, erosion, plantations, logging, changes to hydrology associated with plantations , water extraction (Yarragadee), plantations, ASS.
Biodiversity	Disease, feral species, weeds, WONS, recreation, disturbances, fire, climate, increase population, climate change, clearing, land management practices, human use, pollution, water extraction, dams, urban development, degradation of vegetation on river banks, erosion, salinity, plantations, logging and mining, high carbon activities.
Forest	Disease, feral species, weeds, WONS, recreation, disturbances, fire, climate change; clearing, land management practices, fire management practices, human use, plantations, logging and mining. Lack of education and understanding, inadequate funding for research.
Recreation /Tourism	Dieback and other pathogens, climate change; introduced species, weeds, feral animals, clearing, land management practices, fire management practices, fire, human use, pollution, water extraction, degradation of vegetation on river banks, erosion, salinity, ASS, dams, urban development, plantations, logging and mining.
Cultures	Increased population, high carbon activities, climate change; fire management practices, fire, pollution, urban development and mining, dieback and other pathogens, introduced species, weeds, feral animals, clearing, land management practices, human use, water extraction, dams, erosion and infrastructure, salinity, economics, apathy, loss of knowledge, staff and people turnover rates.

Table B - IDENTIFIED URGENT ACTIONS

ASSET	IDENTIFIED ICON SITES	WCC FOCUS THREATS	REFERENCE PROJECTS and PROPONENTS
Waterways	Warren River freshwater	blackberry salinity	WONS: CSIRO, WCC, DEC WRC, DOW, WCC, RoB
Water resource	town water supplies water quality	climate/management pollution/salinity/ nutrients	DOW - Manjimup Dam & Phillip Creek Dam study DOW, DEC,WCC
Productive land	dryland farming soil plantations	dryland salinity, ASS erosion/ground cover planning issues, weeds	DOW, WCC, WRC DOW, WCC, DAFWA WCC, Shire, FPC
Coast	Black Point Broke Inlet Windy Harbour river mouths/estuaries	rubbish, management marine debris, human pressure bird nesting	DEC, DCCG Shire, DEC DCCG, Tangaroa, WCC, Shire, DEC Hooded Plovers – BA Fairy Terns: BA, DEC, PDT
Marine	fishery highly natural quality	legislation – Marine Parks development/management	
Lakes/Wetlands	Lake Muir/Unicup Lake Jasper	water quality / feral animals weeds, human disturbance/ management	DEC, WCC DEC
Biodiversity	<b>D’Entrecasteaux NP</b> fauna avifauna	WONS, Victorian ti-tree vertebrate feral pests human disturbance	DEC, WCC Woylie - WCC Pigs - WCC Black Cockatoos: BA, DEC,WCC <b>Muir’s Corella: DEC,WCC</b>
Forest	old growth forest native forests	identification process climate, management, weeds	DEC, CC DEC, WCC, WEG, FPC
Recreation/Tourism	Bibbulmun Track Munda Biddi Trail	weeds, dieback, management	DEC DEC
Culture	Indigenous sites historic sites	non-registration management funding	

## Focus 2011 to 2015

*In summary, during the life of this strategic plan the WCC will focus on the iconic sites listed in Table B. **That is, this table provides the foundation to the WCC's strategic actions over the next five years.***

The sites listed in Table B have been identified by the WCC and a diverse range of community members as requiring urgent action and so will provide the focus for our activity.

Community members and a broad spectrum of professional NRM workers were surveyed through public consultation forums and 'one on one' discussion.

The Table B 'focus threats' have been distilled from a longer list (Table A) to fit in with the prerequisites listed above (see Strategy section) i.e. past history, condition of sites, need for protection, connectivity, climate trends and other local actions as well as the identified urgent need for action.

Special note should be taken of the community's desire that the WCC resurrect and participate in more hands-on 'landcare' actions such as equipment hire, seedling giveaways, waterway fencing, revegetation and river/ stream restoration.

The 'iconic site and threat'-focused planning perspective of this Strategy requires that its success will be measured by the following:

- amount of issues/threats addressed - actions
- reduced weed infestations
- improved conditions of iconic sites
- improved health of the local environment
- decrease numbers of threatened flora , fauna and avifauna
- reduced litter and marine debris
- increased water quality
- decreased pollution/pollutants.

Other successes can be measured by:

- number of groups and individuals supported
- number of projects operating – targets been addressed
- quantitative data measured against project targets
- increased resilience for the sub-region to cope with climate change
- comply with occupational health and safety procedures (OHS)
- improved cross regional networks
- continued community satisfaction
- strengthened productivity, functionality and viability of the WCC.

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This document, then, provides the Warren Catchments Council with the fundamental direction to successfully work towards achieving our vision:

***"To work with the Warren Community to sustain healthy forests, rivers, coastal environs, rural enterprises and aspirations."***

## Guiding References

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## Abbreviations

ASS	Acid Sulphate Soils
BA	Birds Australia
CC	Conservation Commission
CFOC	(Commonwealth program of) Caring for our Country
DAFWA	Department of Agriculture and Food WA
DCCG	<b>D'Entrecasteaux Coast Care Group</b>
DEC	(WA) Department of Environment and Conservation
DSEWPC	(Commonwealth) Dept of Sustainability, Environment, Water, Population & Community
DOW	(WA) Department of Water
FPC	(WA) Forest Products Commission
LAG(s)	Local Action Group(s)
LMDCFPEG	Lake Muir Denbarker Community Feral Pig Eradication Group
NDSG	Northcliffe Declared Species Group
NRM	Natural Resource Management
NP	National Park
MWAG	Manjimup Weed Action Group
PDT	Pemberton Discovery Tours
ROB	Ribbons of Blue
SWCC	South West Catchments Council
WCC	Warren Catchments Council
WEG	Warren Environment Group
WONS	Weeds of National Significance
WRT	Warren Recovery Team
WRC	Warren Recovery Catchment