



swan catchment  
council



2006

in focus



Australian Government



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Australia





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It is with great pleasure that I present this report for the 2006 Annual General Meeting of the Swan Catchment Council.

It has been another exceptional year for the Swan Catchment Council members and staff. The *Swan Region Strategy for Natural Resource Management 2006-2008 Investment Plan* received endorsement from the Australian and West Australian Governments. The endorsement guarantees over \$8.6 million from the Australian and West Australian Government's investment through the Natural Heritage Trust (NHT) fund for a further two years.

36 projects across four programs will share the investment. 24 of these projects are a continuation of 2005-2006 projects with 12 new projects being implemented by a range of organisations.

I would personally like to thank Swan Catchment Council staff and members of Reference Groups for their diligence and professionalism in progressing the projects through the EOI and tender process.

The change in methodology for delivering NHT funding to be more project based has been a challenge to many of us, most notably to our sub-regional catchment groups. It is, however, recognised that catchment groups still play a critical role in the delivery of NRM in the Swan.

The Swan Catchment Council continues to seek discussions with the Australian and State Governments to identify additional funding to support the employment of sub-regional support staff.

A major milestone in August 2006 has seen a proposal requesting \$2.7 million from the Australian Government to build on the Swan Catchment Council's current Small to Medium Enterprises projects as a template for a National model being accepted.

With two years NHT funding guaranteed and further funding being secured, the Council can now focus on building even stronger partnerships with Government agencies and Local Government, and instigating legislative and policy changes for the benefit of our natural environment, Indigenous heritage and cultural values and the health of our community.

Alcoa Australia Limited and the Swan River Trust must once again be recognised for their continued support to the Swan Alcoa Landcare Program. Alcoa's commitment since the Program's inception in 1998 has reached \$2.25 million and the Swan River Trust's contribution to \$1.0 million since 1999. The hundreds of community groups and thousands of volunteers must also be recognised for being directly responsible for over 1 million plants planted, 300 kilometres of fencing installed and 200 hectares of weed removed as part Program.

Since becoming Chair of the Swan Catchment Council in March 2006 I have been able to observe and participate in most aspects of the Council's broad range of activities. During that time I have gained an appreciation and understanding of the role that the Swan Catchment Council plays at all levels of NRM in the Swan Region and I have been very impressed by the high degree of commitment shown by both staff and members of the Council.

The strength of any organisation greatly depends on the people who are a part of that organisation and, based on observations in my first six months as Chair, I have no doubt that the Swan Catchment Council is very well positioned to further increase its involvement and influence in NRM issues in the Swan Region in the future.

Finally, a thank you to all of our friends and associates for their help and support during the year as we look forward to an exciting and productive 2006-2007.

  
Colin Heinzman - Chairman

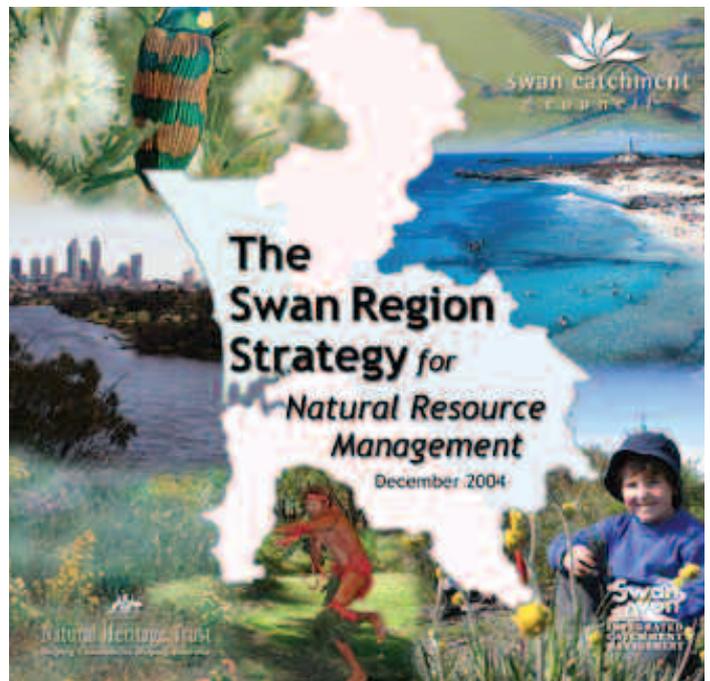
The Swan Catchment Council (the Council) is a community-led regional group with responsibility for coordinating and delivering natural resource management (NRM) in the Swan Region. As one of 56 groups from around Australia, the Council is helping to achieve a nation-wide approach to management and restoration of our environment.

Major activities of the Council are:

- Implementing the *Swan Region Strategy for Natural Resource Management* - A regional strategy guiding environmental activity in the Swan Region.
- Managing and administering the distribution of the Australian Government's Natural Heritage Trust funding in the Swan Region.
- Administering the Swan Alcoa Landcare Program - A funding program for community groups involved in on-ground revegetation and rehabilitation projects.
- Coordinating government and corporate investment in NRM.

The Council aims to improve NRM by:

- Better integration of programs, strategies and statutory processes.
- Increasing understanding in community, government and industry of NRM issues.
- Influencing government policy and practice, and
- Linking local catchment activities to regional priorities.



The Swan Region Strategy for Natural Resource Management was accredited by the Australian and State Governments in December 2004. A review of the Strategy will take place during 2006-2007.



The Council currently has a membership of nineteen, as illustrated in Figure 1.

Geographical representation is provided by the five community members who represent the five sub-regions of the Swan (see Figure 2). The major NRM agencies also have membership (departments of Water, Environment and Conservation, Planning and Infrastructure, Agriculture and Food and the Swan River Trust).

Expertise is provided through the Chairs of the seven Reference Groups (Integrated Water Management, Natural Diversity, Sustainable Production for Light Industry, Rural Landuse, Coast and Marine, Indigenous Advisory Group and Local Government). Additional members include the WA Local Government Association and Water Corporation.

Each Reference Group is comprised of approximately 10 members, drawn from State and Local Government, non-government organisations, research institutions, industry and community, and are chaired by community members. Two Local Government representatives sit on each Reference Group and form the membership of the Local Government Reference Group. The exception to this is the Indigenous NRM Advisory Group, which has a male and female representative from each sub-region.

Reference groups have a key role in advising the Council on progress of its programs, in development of Investment Plans and in the formation of partnership opportunities.

A brief profile of current Council members is provided on pages 5-7.

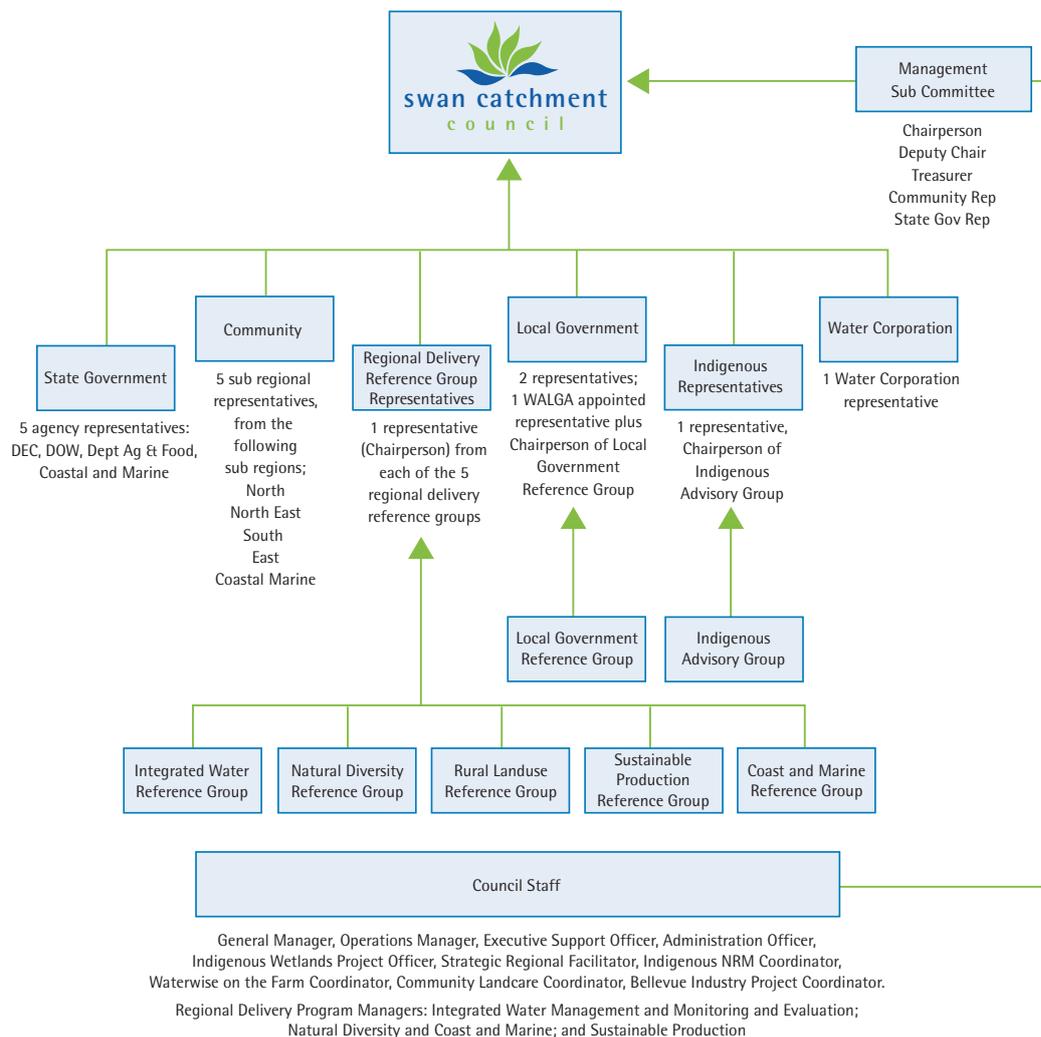


Figure 1: Swan Catchment Council Organisational Structure adopted May 2006



## **Colin Heinzman, Chairman and Natural Diversity Reference Group Chair**

Colin Heinzman is the secretary of the Friends of Attadale Foreshore, a voluntary environmental group involved in the restoration and rehabilitation of the Attadale foreshore from Point Walter to Point Waylen. Colin is chairperson of the Natural Diversity Reference Group and has had a long-standing interest in the conservation of native fauna, particularly fish and birds.



## **Norma Calcutt, North sub-region community representative**

Norma Calcutt was a key campaigner with the Friends of Bold Park Bushland to secure the 440 ha Bold Park. She is currently a member of the North Metro Catchment Group, Chair of ApaceWA and serves on the committee of the Friends of Bold Park Bushland.



## **Cam Clay, South sub-region community representative**

Cam Clay is the Treasurer of the South East Regional Centre for Urban Landcare, a voluntary management group responsible for the South sub-region. Cam has also been Chairman of the Armadale Gosnells Landcare Group since 2000, which coordinates landcare and catchment management in the cities of Armadale and Gosnells.



## **Robert Hawes, North East sub-region community representative**

A farmer at Wannamal in the Shire of Chittering for over 17 years, Robert Hawes has also been an active member of Wannamal Lakes Catchment Group since its inception in 1997.



## **Robert Huston, East sub-region community representative**

Bob Huston has been involved with the Wooroloo Brook LCDC since 1993 and has been the group's Chairman for the past seven years. Bob is also the Chairman of the Eastern Hills Catchment Management Project, which is a leading community support NRM project that has strong local government support across three local government authorities (City of Swan, Mundaring Shire, Kalamunda Shire) and supported by the Eastern Metropolitan Regional Council.



## **Stuart Knott, Coast and Marine sub-region community representative**

Stuart Knott was inaugural chair of Cambridge Coastcare, is still a committee member and represents the Swan Catchment Council on the Coastal Planning Strategy Steering Committee. Stuart runs his own consulting company specialising in strategic business and marketing plans, government liaison and funding applications.



## **Dr Don McFarlane, Chair, Integrated Water Management Reference Group**

Don McFarlane leads the CSIRO Water for a Healthy Country Flagship in WA. The Flagship carries out about \$7 million per annum of research on water supply and demand management, catchment management for water quantity and quality, and water reuse.





**Alice Stubber, Chair, Coast & Marine Reference Group**

Alice Stubber has lived in the northern suburbs of Perth for the last 17 years and has been actively involved in many community driven projects to highlight the importance of conservation and management of natural areas in an urban environment. Alice's active memberships include the Quinns Rocks Environmental Group and Friends of Koondoola Regional Bushland.



**Dr Beth Walker, Chair, Sustainable Production Reference Group**

Dr Beth Walker is a Senior Lecturer in the School of Management at Edith Cowan University and Director of the Small and Medium Enterprise Research Centre at the University's Joondalup campus.



**Beverley Rebbeck, Chair, Indigenous NRM Advisory Committee**

Since 2000, Beverley has worked with the Department of Indigenous Affairs (DIA), Metropolitan / Wheatbelt Region as a Regional Officer. Her role with DIA is to increase understanding of current priorities in National and State Indigenous Affairs policy and implement DIA priorities in whole of government coordination. As part of her duties, Beverley also promotes social and economic initiatives for Aboriginal people and communities.



**Cr David Boothman, WALGA State Council Representative & Deputy Chair**

David Boothman has been a Councillor with the City of Stirling since 1994. Since 1997 David has been the City of Stirling representative and Chairperson of the North Metro Catchment Group (NMCG). The NMCG is an incorporated body that operates as the North sub-regional group representing most of the metropolitan area north of the Swan River and encompasses some 15 Local Governments.



**Cr Clive Robartson, Local Government Reference Group Chair**

Clive Robartson is the Deputy Mayor of the City of Melville and has been a Councillor at the City for over 20 years. Clive's Local Government involvement extends beyond the City of Melville. He has been a long-term member and Chairman of the Southern Metropolitan Regional Council. He is the Immediate Past President and Life Member of the WA Local Government Association and during his term of office was a Director of the Australian Local Government Association.



**David Mitchell, Department of Environment and Conservation**

David Mitchell has been the Department of Environment and Conservation's (DEC - formerly Department of Environment and Department of Conservation and Land Management), Regional Leader Nature Conservation in the Swan Region since 1986. David leads DEC's biodiversity conservation programs across the region including management of terrestrial and marine conservation estate, protection and recovery of threatened species and ecological communities, and protection of biodiversity from threatening processes both on and off DEC reserves.



## **Dr Mike Mouritz, Department for Planning and Infrastructure**

Mike Mouritz is the Executive Director, Urban Innovations at the Department for Planning and Infrastructure. His role includes the strategic facilitation of the most significant landmark urban projects and initiatives, declared as the principal priorities of the Minister and Government.



## **Peter Armanasco, Water Corporation**

Peter Armanasco was appointed Perth Regional Business Manager for the Water Corporation in 2005. Peter is responsible for provision of water related services to Corporation customers via a network of water, wastewater and drainage assets.



## **Luke Morgan, Department of Agriculture & Food**

Luke Morgan is the Development Officer, Biosecurity and Research South West Agricultural Region at the Department of Agriculture and Food. Luke recently replaced long standing member Eric Wright as the Department's representative.

**Department of Water** – currently vacant

**Swan River Trust** – currently vacant



The Swan Region's social and economic life is dominated by the Perth Metropolitan Area, which makes up 53% of over 770,000 hectares of land (see Figure 2). Many NRM issues in the Region relate to the increasing demand for land, water, power and food to support a growing population as outlined in the Regional Programs section at page 9.

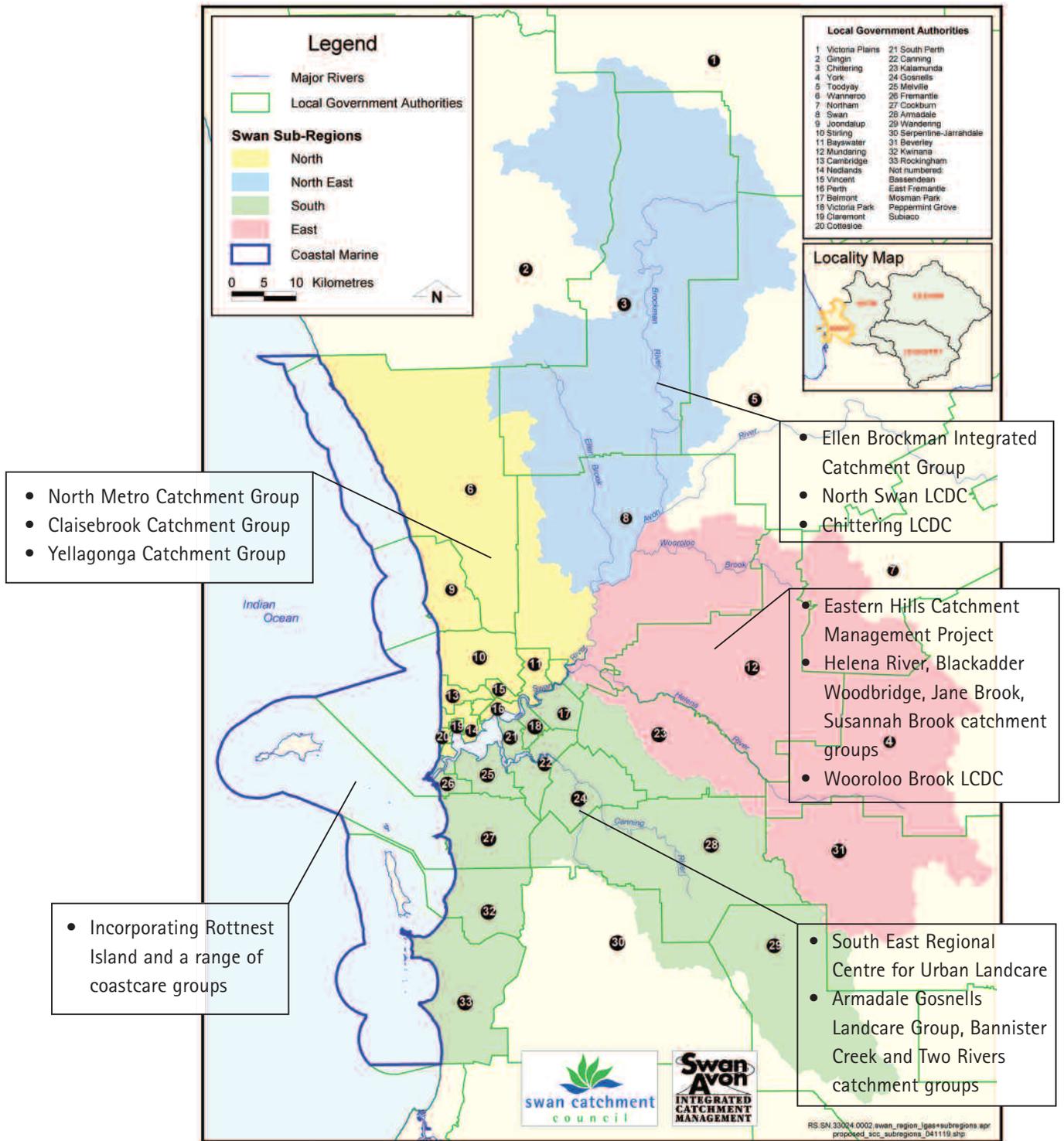


Figure 2: Sub-regions of the Swan Region including Local Government boundaries and major community groups working in those regions.



Coordination of activities within the *Swan Region Strategy for Natural Resource Management* (the Strategy) is implemented through six Programs:

- Integrated Water Management
- Natural Diversity
- Sustainable Production
- Coast and Marine
- Indigenous Cultural Heritage, and
- Local Government.

## **Integrated Water Management Program**

A major natural icon for Perth and the Swan Region is the Swan and Canning rivers, which include many tributaries such as Bennett, Ellen, Susannah, Jane, Wooroloo, Wungong and Yule brooks and the Helena, Brockman and Southern rivers.

Wetland systems include the Yellagonga and Beeliar wetlands, as well as many important lakes and swamps. There are three Ramsar-listed wetlands, namely the Becher Point wetlands, Forrestdale Lake and Thompsons Lake. The lakes and wetlands are sites of significant biodiversity.

Groundwater is an increasingly important asset and falling groundwater levels are threatening the ecological values of many water dependant ecosystems. Groundwater supplies the Perth Metropolitan Area with approximately half of its potable water requirements and maintains lake, wetland and cave systems. Falling groundwater levels are in part due to reduced rainfall, however effects can also be managed through reducing the use of water in the superficial aquifer or by recharge.

The Strategy identifies incompatible development, inappropriate land and water management practices and population growth as the three key pressures threatening waterways, wetlands and groundwater in the Region.

These have resulted in eutrophication of wetlands and waterways, biological and chemical pollution, erosion and sedimentation, increased salinity of waterways and wetlands, habitat loss and ecosystem fragmentation, drainage modifications, acidification and over-abstraction of groundwater.



Projects addressing these issues within the Integrated Water Management Program are:

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
<b>Integrated Water Management Program</b>			
<i>Foreshore Assessment and Water Monitoring Sub-program</i>			
Swan-Canning Foreshore Assessment	Swan River Trust	79,910	0
Swan-Canning Tributary Foreshore Assessment	Department of Environment and Conservation (DEC)	104,896	106,338
Water Quality Monitoring & Evaluation Framework	DEC	393,922	285,241
Water Quality Partnership Project	North Metro Catchment Group (North Component)		
	South East Regional Centre for Urban Landcare (South Component)	211,367	214,273
Superficial Aquifer Health *	GHD Pty Ltd	128,306	132,352
<i>Water Management, Training and Technical Support Sub-program</i>			
Avon Upper Swan Salinity and Nutrient Management	Ellen Brockman Integrated Catchment Group	318,514	322,893
Canning Environmental Flows	Department of Water	94,541	0
Wetland Watch	WWF Australia	0	237,320
Wetlands Indigenous Project *	Swan Catchment Council	103,433	104,855
Sustainable Landscaping Strategy	North Metro Catchment Group	105,684	107,136
Ribbons of Blue/Waterwatch WA	DEC	22,510	22,819
Swan Alcoa Landcare Program **	Swan Catchment Council	22,510	22,819

\* New NHT project being implemented in 2006-2008.

\*\* Other projects being delivered by Council with additional external funding.

### Natural Diversity Program

Biodiversity in the Swan Region faces pressures from a large and increasing population. The demand for housing now and into the future will result in many species of flora and fauna becoming extinct or threatened.

The vegetation which remains in reserves of various kinds is under threat from invasive species and inappropriate use. These reserves are often not managed well due to lack of expertise and/or resources. Increased fires, rubbish dumping and inappropriate recreational use are all symptoms of a population of people who do not value biodiversity or understand the impact of their actions.

Significant species and communities include threatened ecological communities, threatened species and their habitats, wetlands of international importance and migratory bird habitat. Species management now focuses on a 'whole of landscape' approach, rather than concentrating on individual species in isolation.



The preservation of an adequate and representative set of reserves will enrich the Region by maintaining the full range of endemic landform/soil/vegetation complexes. Ecosystem integrity that is essential to species survival requires the creation of reasonably large inter-linked areas, and not just the protection of small, isolated remnants.

Projects addressing these issues within the Natural Diversity Program are:

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
<b>Natural Diversity Program</b>			
<i>Local Diversity Management and Training Sub-program</i>			
Stop Dieback- The Biological Bulldozer	Dieback Working Group	119,300	120,942
Dieback Project (cross-regional) **	Swan Catchment Council & SCRIPT	40,000	40,000
Ecological Linkages *	University of WA	105,684	107,136
Invasive Species *	DEC	119,190	120,828
Behaviour Change for Natural Diversity *	WA Local Government Association (WALGA)	122,566	107,136
Private Landholder Incentive Package *	WWF Australia	105,684	107,136
Biodiversity Action Learning Project	WALGA	174,451	181,413
Skills for Nature Conservation	Greening Australia (WA)	113,675	115,237
<i>Biodiversity Planning &amp; Threatened Species &amp; Communities Sub-program</i>			
Perth Biodiversity Project	WALGA	468,205	474,641
Threatened Species Program	DEC	465,954	248,732

\* New NHT project being implemented in 2006-2008.

\*\* Other projects being delivered by Council with additional external funding.

## Sustainable Production Program

Industrial and agricultural production in the Swan Region are important components of the social and economic environment. However, lack of knowledge of best practices in industry and agriculture and limited resources to assist implementation, has resulted in degradation of our environmental assets.

There are over 110,000 small to medium industrial enterprises (SMEs) in the Region and these are mostly unregulated. Several additional industrial areas are planned for the future. Initial evidence from audits and water quality monitoring indicates that there is a pollutant threat to ground and surface water from inappropriate practices. Problems from air emissions in this sector are currently unknown.

Broadacre agriculture occurs mainly in the Avon Upper Swan part of the Region. Here, there are significant salinity and nutrient export issues, as well as erosion, waterlogging and acid soils threats. Waterlogging is instrumental in sheet erosion and nutrient transport especially during winter in areas where the groundwater table lies close to the surface. Development of acid sulphate soils can be devastating to both natural systems and the built environment.



Intensive horticulture is a significant sector in the Region. It includes market gardening on the sandy soils and grape and fruit production on the eastern side of the coastal plain and on the Darling Scarp. Threats to natural assets from this sector include wetland loss through over extraction of groundwater and pollutant export from poor farming practices.

Projects addressing these issues within the Sustainable Production Program are:

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
<b>Sustainable Production Program</b>			
Salinity Management in Wooroloo *	Eastern Metropolitan Regional Council	51,772	52,485
Waterwise on the Farm **	Swan Catchment Council	16,882	17,114
Linking BMPs with Vegetable Growers	Vegetables WA	135,059	136,916
Linking BMPs with Grape Growers and Orchardists *	Environmental Management Systems Australia	51,773	52,484
SME Sustainability Project	Swan Catchment Council, WALGA & North Metro Catchment Group	330,895	319,470
SME Air Emissions Study	Swan Catchment Council	40,518	0
Bellevue Sustainable Industry Project **	Swan Catchment Council	16,882	17,114

\* New NHT project being implemented in 2006–2008.

\*\* Other projects being delivered by Council with additional external funding.

### Coast and Marine Program

Perth’s coastline and offshore waters are the playground for a large part of a growing population. The brilliant colours and clarity of the water and the rich diversity of sea life attract thousands of recreational users throughout the year. Power boating, yachting, surfing, sailing, fishing, snorkelling and beach usage are at their height in summer.

Four large marinas have been built between Fremantle and Yanchep and two further marinas are proposed in Cockburn Sound. Gage Roads provides the entry route for the vastly increased amount of commercial shipping coming to Fremantle and Cockburn Sound. Rottnest Island remains a premier recreational and environmental focus for many Perth residents and tourists. Accordingly, protection of estuarine, coastal and marine habitat integrity and the cultural values associated with the marine environment must be a high priority for the Swan Region.

Symptoms of degradation of the Region’s coastal and marine environment are biodiversity decline, exotic marine species and exotic plants. Prominent causes are recreational activities, urban or industrial discharges and infrastructure development, leading to erosion and sedimentation, nutrient export and enrichment, and chemical contamination. Beach access is an ongoing issue for dune preservation. There is generally inadequate recognition of the long-term effects of usage and development along the coastal strip.



Projects addressing these issues within the Coast and Marine Program are:

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
<b>Coast and Marine Program</b>			
Developing indicators to support sustainable use of marine assets* **	CSIRO	481,896	129,550
Assessment of invertebrate populations on intertidal platforms in the Perth metropolitan area **	Department of Fisheries	38,710	46,844
Beach Health	Department of Water	17,300	0
Local Government Coastal Planning Incentive *	Swan Catchment Council	90,040	91,277
Coastcare Program	Swan Catchment Council	165,222	167,493
Coastal Seed Program *	APACE Limited	12,380	12,551
Coastal Indigenous Project * **	Greening Australia (WA)	16,882	17,114

\* New NHT project being implemented in 2006-2008.

\*\* Other projects being delivered by Council with additional external funding.

## Indigenous Cultural Heritage Program

The *Swan Region Strategy for Natural Resource Management* acknowledges that the values, belief systems and traditional practices of Indigenous cultural heritage have been absent in previous management regimes and form the basis of inclusion into future environmental management planning scenarios that produce natural resource management outcomes.

Indigenous Cultural Heritage is seen as underpinning all Council programs.

## Local Government Liaison Program

The 38 Local Governments located wholly or partially within the Region are recognised as a major partner in NRM. The Council liaises closely with these Local Governments, as well as the Western Australian Local Government Association and a number of regional Local Government organisations, such as the Eastern Metropolitan Regional Council and the Western Suburbs Regional Organisation of Councils.

Each of these Local Governments has a unique structure and differing NRM issues. Recognising this, the Council employs a Local Government NRM Liaison Officer with an aim to link Local Government planning to the regional outcomes of the Strategy.



## 2006-2008 Investment Plan

The *Swan Region Strategy for Natural Resource Management 2006-2008 Investment Plan* received endorsement from the Australian and State Governments. The endorsement guarantees funding of over \$8.6 million from the Australian and Western Australian Government's investment through the Natural Heritage Trust (NHT) fund for two years.

The process used for developing the 2005-2006 Investment Plan identified the investment, which the community of the Region wished to make into particular areas. This information was used again in the development of the 2006-2008 Investment Plan.

The Council's Reference Groups then developed the Regional Program activities taking into account that many of the projects from the 2005-2006 Investment Plan were intended to be ongoing for more than one year. Reference Groups were asked to review progress to date and confirm that funding should continue for the specified period. Sub-regional groups were asked to provide strategic project concepts, which extended the work that was being done in 2005-2006. In addition, Reference Groups identified important gaps within each program.

In 2006-2008, 36 projects across four programs will share the investment. 24 of these projects are a continuation of 2005-2006 projects with 12 new projects being implemented by a number of organisations.

Copies of the Investment Plan and summary sheets outlining all the projects being implemented in 2006 to 2008 can be downloaded from [www.swancatchmentcouncil.org](http://www.swancatchmentcouncil.org) or by contacting the Council on (08) 9374 3333.

## Wetland Watch

Wetland Watch is a wetland conservation project managed by WWF Australia in partnership with the Cities of Armadale, Cockburn and Rockingham, Town of Kwinana, Department of Environment and Conservation and the Council. This year it has operated within the southern metropolitan region of Perth focusing on protecting high conservation value wetlands on private property, particularly those outside of current protective mechanisms and those under significant threat.



*Image courtesy  
Christina Mykytiuk,  
WWF Australia*

It has been estimated that 70-80 per cent of wetlands on the Swan Coastal Plain have been either lost or seriously degraded due to filling, draining or clearing since European settlement. Of those wetlands that remain, only 15 per cent are considered to retain high conservation values. These remaining wetlands are under significant threat from urban and rural encroachment. Many of these high value wetlands are located on private property and are outside of current protective measures such as Environmental Protection Policies and the Bush Forever scheme.

The Program included allocating a \$100,000 grants scheme. Landholders in Cockburn, Armadale, Kwinana and Rockingham received \$44,000 in funding to help manage and maintain wetland and bushland on 10 wetland management and restoration projects. Property owners also receive personalised advice on how to best manage the wetlands and bushland on their property.

In 2006-2007 Wetland Watch will be extended into the northern metropolitan region, focusing on the Ellen-Brockman catchment.



## Bennett Brook Fish Study

The North Metro Catchment Group (NMCG) has been surveying fish populations in Bennett Brook in Caversham since September 2005.

The survey was carried out to determine the species composition and distribution of native fresh water fish in Bennett Brook. It aimed to replicate, as close as possible, a similar survey carried out in 1998. Since that time urban development has encroached towards some sections of the brook, which may have had an adverse impact on native fish populations.

One of the most alarming results of the survey was the discovery of an unidentified species of feral fish thought to belong to the Cichlid family, a popular type of exotic aquarium fish. Native to South America, this species is known for its aggressive nature and rapid breeding habit and has had devastating effects in waterways in other areas.



*One of the introduced Cichlids found in Bennett Brook. Photo by Ben de Haan, NMCG*

Officers from the NMCG alerted Department of Fisheries and Murdoch University to the discovery of the feral fish in February 2006. The Department of Fisheries began an intensive survey program of the Bennett Brook to identify the extent of the feral fish and to ascertain its effects on the native fish populations. By June 2006, over 600 individual fish had been caught with sizes ranging from 6mm to 200mm. A taskforce has been established from which a control strategy was formulated and implemented.

The results of the 2006 survey were similar to those of the 1998 study, which identified healthy populations of native freshwater fish in Bennett Brook. Finding a new introduced species during this survey was an important result and it will be interesting to monitor the brook into the future to better understand the impacts of the Pearl Cichlids.

## Bellevue Sustainable Industry Project

The Council, with support from the Waste Management Board and the Swan River Trust, commenced a project to help businesses in the Bellevue Industrial Estate to introduce simple and effective ways to Reduce, Re-use or Recycle waste.

As a first step, Council officers visited businesses in the Bellevue Industrial Precinct during the year to investigate the current attitudes and practices of business owners/managers to environmental waste management. Uptake from businesses was encouraging with over 120 businesses taking part in the survey, developed together with Edith Cowan University.

Some key findings of the survey were:

- The most critical issue was to eliminate odour/smells emanating from sites in the area (31%). The other issues of most concern were sewerage, waterways and groundwater (24%) and contaminated site/hazardous waste (13%).
- The volume and type of waste disposed of in Bellevue supports research that small business operations have a substantial impact on the environment. The major waste products from within the industrial area have been identified as steel, cardboard, plastics and oil.
- The results indicate that the small to medium enterprises in Bellevue are interested in participating in waste management strategies, particularly when the benefits are visible.



*(l-r) Swan Catchment Council project coordinator Peter Male, Bob Wright of WA Bos Semi Trailer Equipment Pty Ltd and Mike Pattison, Sustainable Production Officer, North Metro Catchment Group illustrating that waste should be separated so enabling it to be recycled. Image courtesy of the Midland-Kalamunda Reporter.*

- Barriers to recycling were experienced by the respondents. The majority of the barriers are perceived to be external (59%), with only 26% identifying an internal barrier to recycling.
- Of those who acknowledged they did produce waste water, 69% had prevention measures in place. In addition, 59% of the total sample were unaware of where the stormwater drains in the area flowed.

The next steps of the project will see Council officers providing Bellevue business owners/managers with the tools to encourage their participation in best management practice. Businesses will then be re-surveyed in 12 months to gauge if practices and attitudes have changed.

## Beach Health

The Beach Health project was a sampling program in the Swan Region investigating event-driven winter water quality entering the ocean from stormwater drain outfalls. The drains, managed by Local Government and the Water Corporation, divert urban stormwater runoff from roads, car parks and reserves into the ocean at metropolitan beaches.

The first task of the project was to identify, map and prioritise drains for sampling along the Perth metropolitan coastline. The project area covers 89 km of coastline from the City of Wanneroo in the north to the City of Rockingham in the south as well as Rottnest Island. A drain inventory was completed and a total of 65 drains were targeted for sampling.

Parameters monitored included bacteria indicators, nutrients, heavy metals, hydrocarbons and total suspended solids. The project collected baseline water and sediment quality data to assist Local Government to prepare stormwater management plans. The effect of stormwater discharge on the nearshore marine environment was also investigated in a pilot study within the Marmion Marine Park.

The Department of Water is currently using automated devices to measure flow volume at four coastal outfalls. The flow meters will allow the concentration of contaminants entering Perth's coastal waters to be estimated.



A workshop with Local Government was held in March 2006 to discuss preliminary data. Participants proposed potential management strategies to improve any contaminant problems.



### Nyoongar Stories of Country

In collaboration with Noel Nannup, the Council is producing audio CD-ROMs, which are narrated by Noel and tell Nyoongar stories of country. These Nyoongar creation stories have been passed down through the Nannup family. Noel Nannup first heard the stories in 1956, around a campfire, from his Uncle Thomas. Noel is now the custodian giving him the right to share these stories.

The CDs are used as a tool to engage and increase understanding, acceptance and respect of the connections between land and people.

Two CDs have been produced so far - 'Carers of Everything' and 'When the sea level rose'.



*When the sea level rose audio CD*

### Swan Alcoa Landcare Program

The Swan Alcoa Landcare Program is a partnership of Alcoa Australia Limited, the Swan River Trust and the Swan Catchment Council. This successful partnership has been supporting community-based conservation projects for the past eight years.

Alcoa Australia Limited and the Swan River Trust must once again be recognised for their continued support to the Program. Alcoa's commitment since the Program's inception in 1998 has reached \$2.25 million and the Swan River Trust's contribution to \$1.0 million since 1999. The hundreds of community groups and thousands of volunteers must also be recognised for being directly responsible for over 1 million plants planted, 300 kilometres of fencing installed and 200 hectares of weed removed as part of the Program.

In 2006 more than \$570,000 in landcare funding was received by 41 community environmental groups.

Projects ranged from foreshore, wetland and bushland revegetation and weed control and includes turning drains into living streams, as well as creating bushland corridors. Many projects funded are a continuation of work funded by the Program over a number of years.

A major attribute of the Program is its unique partnership approach and in-kind support from Local Government and industry. This was recognised in 2006 with the City of Gosnells being awarded the Local Government Recognition Award for its support to the Bannister Creek Catchment Group to revegetate the Tom Bateman Wetlands.

The City of Gosnells provided \$196,000 in 2004 to undertake revegetation of the wetlands which now provides many important benefits, such as regulating storm water flow; improving water quality; creating habitat zones; and providing a recreational haven for the community.



*I-r Tony McRae, Parliamentary Secretary for Agriculture & Forestry (representing Environment Minister); Kim Horne, Refinery Manager, Alcoa of Australia; Charlie Welker, Chairman, Swan River Trust and Colin Heinzman, Chairman Swan Catchment Council are joined by Mayor Pat Morris of the City of Gosnells, the winner of the Local Government Recognition Award, and the many volunteers receiving Swan Alcoa Landcare Program funding in 2006.*



## Swan Catchment Centre

The Swan Catchment Centre, as a regional office of the Department of Environment and Conservation, has continued to support the Council. The Centre has played a vital role in the development and implementation of the Council's Strategy and Investment Plans and has also provided support to the five sub-regional groups in the Swan Region by providing training in natural resource management.

The training program has targeted catchment group officers, community group volunteers and the general public.

One of the most successful training topics is the Cross Cultural Awareness Workshops. These have been held throughout the year to provide an Indigenous perspective of the land and the importance of Indigenous sites. Participants learn about culture, history and spirituality of Indigenous Australians and gain an understanding of the importance of land, skin groups, sacred sites and traditions.



In 2006, the focus has shifted to providing training to Local Government officers involved in dealing with NRM issues. A Cross Cultural Awareness Workshop was also held for Local Government with other workshops focussing on Foreshore Management and Acid Sulphate Soils.

*Nyoongar Elder, Noel Nannup, addresses attendees at a Cross Cultural Awareness Workshop.*



## Strategy Review

Receiving accreditation from the Australian and State Governments in 2004, the Council will be undertaking a review of the *Swan Region Strategy for Natural Resource Management* (the Strategy) in 2006-2007.

Through the Council's Reference Groups, the community will once again be asked to provide input into the natural resources within the Swan Region requiring priority action and ascertaining if NHT investment since 2004 is achieving Strategy targets.

## Monitoring and Evaluation

The importance of monitoring and evaluation is to be able to report on the progress of the Strategy. It completes the cycle of adaptive management, to learn from actions taken in the past in order to make future actions more effective.

A draft Monitoring and Evaluation Plan has been developed for the Swan Region and presented to the Australian and State Governments for endorsement.

The Plan will assist Council to:

- Monitor the state of the natural environment in the Region
- Coordinate data collection from all projects being implemented by Council
- Demonstrate contribution towards improvement in resource condition
- Provide performance information to inform future investment planning and to refine the Strategy
- Be accountable to funding bodies and community stakeholders
- Effectively manage reporting processes.





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