



swan catchment council

2007 Annual Report



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At the mid point in the Swan Catchment Council's 2006 – 2008 Investment Plan I am pleased to report that all projects are progressing well. The credit for this achievement goes to the staff of the Swan Catchment Council and the members of the various Reference Groups who have provided valuable input into all aspects of Council activities.

An important aspect of the Council's activities in the past twelve months has been to promote the idea of a more integrated approach to Natural Resource Management (NRM) within the Swan Region. The concept of integration has been promoted in regular meetings with government ministers, government agencies, local government and sub-regional groups. Although there is still some distance to go, I believe we have made real progress in gaining a wider acceptance of the importance of an integrated approach to NRM. An indication of this progress is that there is now greater recognition of the fact that no single organisation has the capacity to achieve its goals in NRM by acting alone and that cooperative partnerships are a more effective way of achieving desirable outcomes. The Swan Catchment Council will continue to pursue and develop partnerships at all levels within the Region to achieve its goals.

Another important step in the Council's development over the last twelve months has been the establishment of sub-regional forums in each of the five sub-regions. The membership of each forum includes representatives from community groups within each sub-region together with a representative from each local government in the sub-region. Each forum is jointly chaired by a local government member and a community member. The next phase in this initiative will be to develop each forum into a sub-regional reference group which will be represented on Council by the community co-chair.

A notable achievement for the Council this year was the establishment of the Maali Foundation in partnership with the National Trust of Australia and with Lt Gen John Sanderson AC as patron. The aims of the Maali Foundation are to facilitate the purchase or transfer of properties to be managed by Indigenous Australians in order to rehabilitate bushland, conserve cultural values such as Indigenous medicines and food, and educate the broader community about Indigenous values. It is also pleasing to observe that the Indigenous NRM Advisory Group is being consulted about indigenous cultural values in NRM by local governments, the Swan River Trust, the Department of Environment and Conservation and Westralia Airports Corporation.

The Light Industry Program continues its success story with a recent presentation in Canberra to the Australian Government, the Federal Minister for the Environment and representatives from six States and Territories. The outcomes from the Light Industry Program were well received by all parties and created considerable interest and enthusiasm. The presentation put forward a case for including a light industry program in developing an Urban Model for post June 2008 NHT3 funding. The Urban Model recognizes that delivering Natural Resource Management in high density urban environments is significantly different from that of rural and remote environments. Funding and programs should take those differences into account. A National working party to further develop the Urban Model has been established with participants from Queensland, South Australia, the ACT and Edith Cowan University, with the Swan Catchment Council in the lead role.

I would like to take this opportunity to once again thank Alcoa Australia Limited and the Swan River Trust for their generous, ongoing support of the Swan Alcoa Landcare Program which, through supporting on-ground work with such a large number of community groups across the Region, has made valuable and significant improvements to the environment in which we all live and work.

Turning to the future, investment planning for the next round of NHT funding after June 2008 is well under way with major steps towards the next investment plan developed and widely circulated for consultation.

Finally I would like to thank all the staff of the Swan Catchment Council for their hard work and dedication throughout the year and in particular to the General Manager, Linda Soteriou, for her tireless and dynamic leadership of the organisation.

Colin Heinzman - Chairman



The Swan Catchment Council (the Council) is a community-led regional group responsible for coordinating and delivering natural resource management (NRM) in the Swan Region.

It addresses community needs by working closely with government agencies, industry, community and Catchment groups and other bodies to promote collaboration on key environmental issues

Its legal constitution is that of an incorporated association.

As one of 56 groups from around Australia, the Council is helping to achieve a nation-wide approach to managing and restoring 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 doing on-ground revegetation and rehabilitation.
- 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.
- Influencing government policy, and
- Linking local catchment activities to regional priorities.

In many cases the current programs funded by the State and Commonwealth Government have exceeded our expectations and leveraged additional partnerships and funding which have led to significantly greater outcomes.



Regional leaflets for the North Metro Conservation Group (NMCG), Eastern Hills Landcare, Ellen Brockman Integrated Catchment Group and South East Regional Centre for Urban Landcare SERCUL



The membership of the Swan Catchment Council reflects the diverse stakeholders in the Swan NRM Region, which is amongst the most populous NRM regions in Australia. Membership includes local and state government, community, indigenous and corporate stakeholders.

Geographical representation is provided by the five community members representing the five sub-regions of the Swan. The major NRM agencies also have membership (Departments of Water, Environment and Conservation, Planning and Infrastructure, Agriculture and Food, and Water Corporation). 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 NRM Advisory Committee and Local Government).

Each Reference Group is comprised of approximately 10-14 members, drawn from State and Local Government, non-government organisations, research institutions, industry and community, and are chaired by community members. 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 Committee, which has a male and female representative from each sub-region. Reference groups have a key role in advising the Council on the progress of its programs, in developing Investment Plans and in forming partnership opportunities.

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

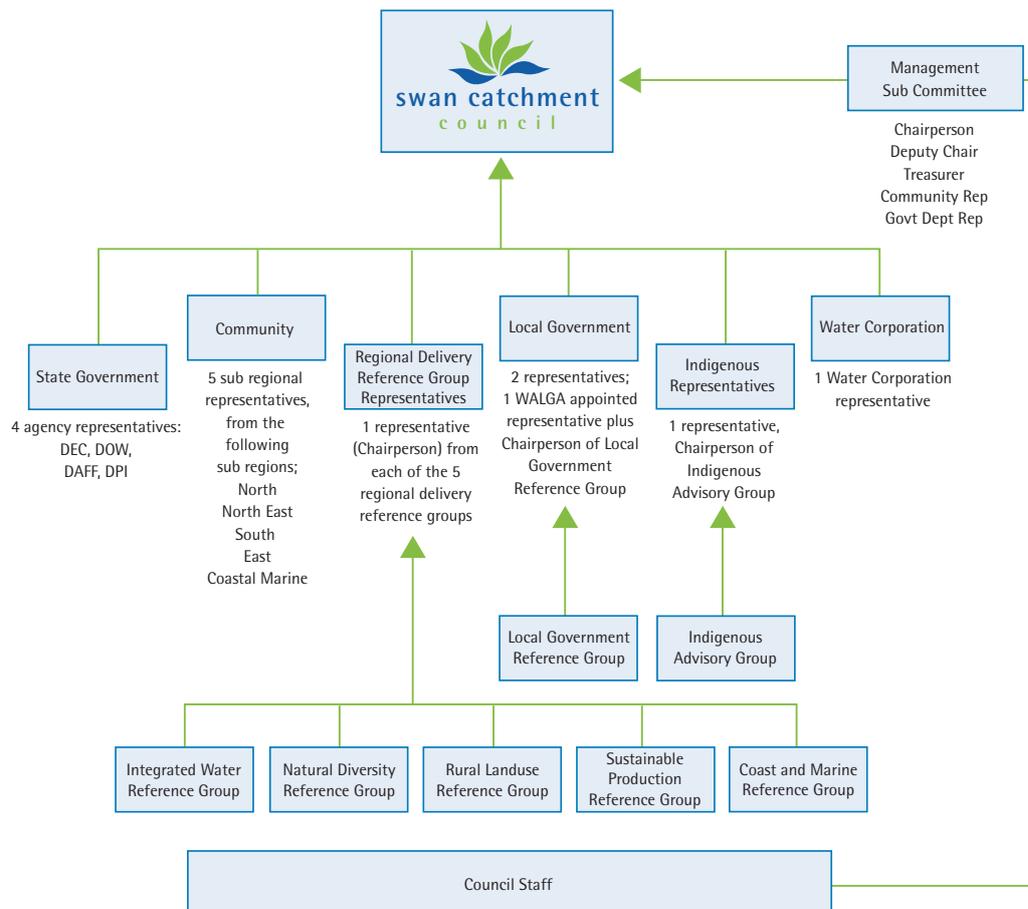


Figure 1: Swan Catchment Council Organisational Structure adopted May 2006



Colin Heinzman, Chairman and Natural Diversity Reference Group Chair

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



Roger Hirley, North Sub-Region community representative

Roger Hirley's interest in the environment stems from his early life in the country, a passion which grew with his purchase of a bush block with a creek running through it. 30 years of enhancing the natural environment has given him invaluable insight into a range of environmental issues.

He is involved in Catchment groups in the South West and Perth and represents the North Metropolitan Conservation Group on the Swan Catchment Council.



Russell Gorton, South Sub-Region community representative

Russell Gorton was a driver in forming the Wilson Wetlands Action Group in 1998 in response to development threats within the Canning River Regional Park and has chaired the group since 1998. He has been active on other committees and environmental and community organizations including the Canning River Regional Park Community Advisory Committee, Wilson Residents and Ratepayers Association and the Two Rivers Catchment Group. He is co-chair of the South sub-regional forums.



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 Land Conservation District Committee 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. This leading community support NRM project has strong support from the City of Swan, Mundaring Shire, Kalamunda Shire and 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, Coastal and 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 is particularly active in the Quinns Rocks Environmental Group and Friends of Koondoola Regional Bushland.



David Ellement, chair, Rural Landuse Reference Group

David Ellement has a family background in vegetable growing that goes back three generations. He has been representing vegetable growers for nine years, is very familiar with issues affecting the industry Australia-wide and believes the question of long term sustainability is vital to the industry's future. The way to achieve this is by industry and the community working together to achieve best practice.



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 (SMERC) 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

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.



Alan Sands, Department of Environment and Conservation

Alan Sands has been manager of the Swan Region for the Department of Environment and Conservation since 2002. Prior to that he was district manager for the Swan Coastal District with the Department of Conservation and Land Management. Alan has more than 10 years experience as the manager of multi-disciplinary work groups and a professional background in landscape architecture and NRM. His focus is working with staff and the broader conservation community on planning and implementing strategies to protect and enhance the value of natural lands.



Ross Sheridan, Department of Water

Ross Sheridan is the regional manager for the Department of Water's Swan - Avon, Eastern Goldfields Region. He has been working in the water industry for more than 30 years with roles in water resource measurement, water allocation planning and water source protection in both operational and policy areas. He is qualified as a hydrogeologist and a hydrographer.



Jamie Bowyer, Department of Agriculture and Food

Jamie Bowyer is a development officer with the Department of Agriculture and Food WA. He is based at South Perth and works in the 'Extension and Communication' project within the Natural Resource Management Division. His work includes building the extension, evaluation and communication capacity of the NRM division.



Barbara Pedersen, Department for Planning and Infrastructure

Barbara Pedersen is the acting director of Environment and Sustainability with the Department for Planning and Infrastructure in Western Australia. A geographer with experience in government and consultancy, Barbara enjoys working as a strategic environmental planner and representing the coastal and marine interests in Natural Resource Management in WA.



Peter Armanasco, Water Corporation

Peter Armanasco was appointed Perth regional business manager for the Water Corporation in 2005. Peter is responsible for providing water related services to Corporation customers via a network of water, wastewater and drainage assets.





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.

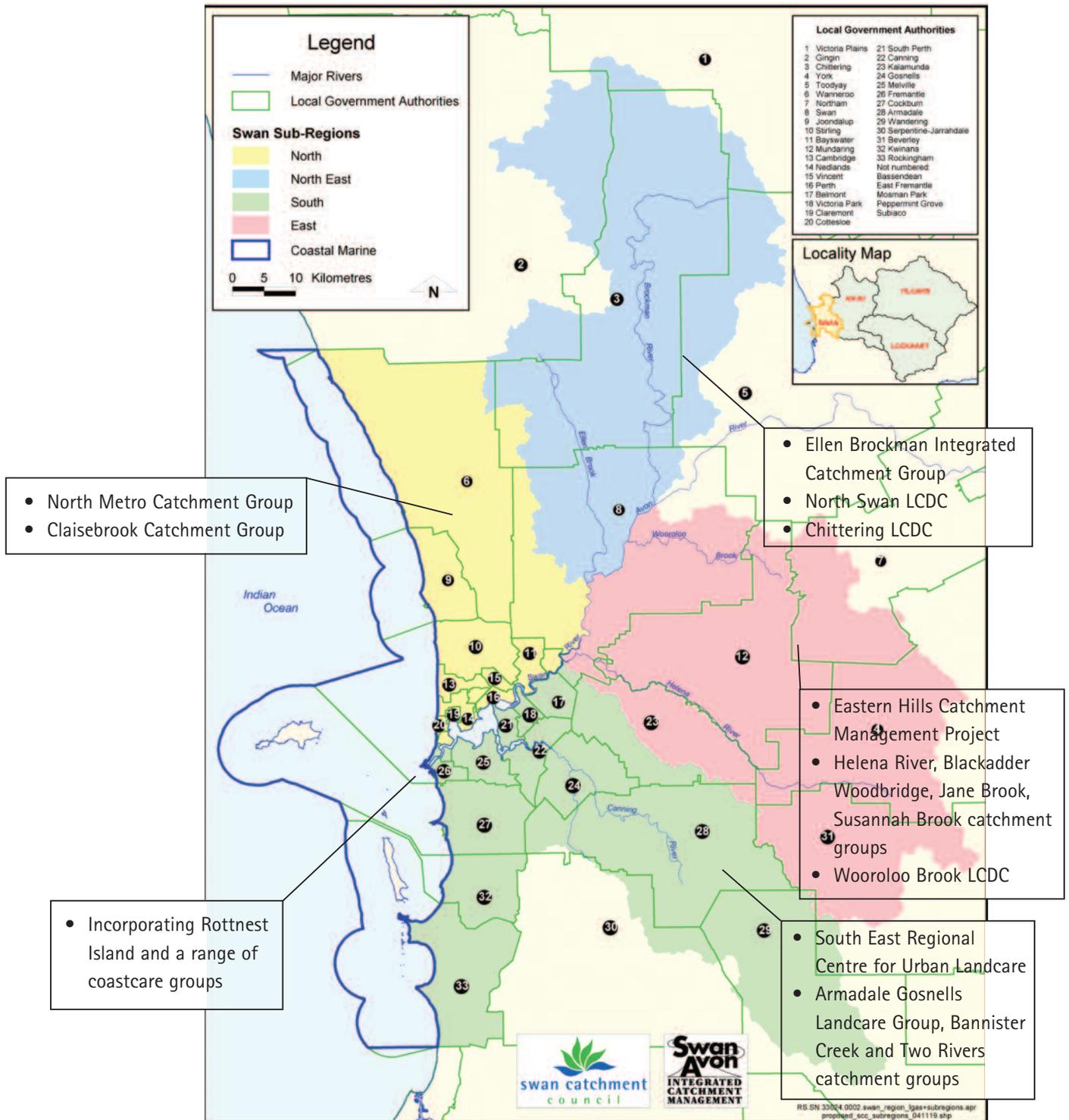


Figure 2: Sub-regions of the Swan Region including local government boundaries and major community groups working in those regions.



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

In the past year the Swan Catchment Council has shown great leadership in the sustainable management of the Region's precious water resources, working collaboratively with private landholders and Federal, State and Local Governments on wetlands, rivers and groundwater.

The Council's Wetland Watch project continues to support private landholders managing wetlands on their own properties. The project has traditionally focused on the southern metropolitan area but has extended into the Ellen Brook and Brockman River catchments in the past year. Wetland Watch grants are assisting landholders to plan and implement activities such as fencing, weed control and revegetation works to improve wetland health.

The Water Quality Monitoring and Evaluation Framework delivered by the Department of Water has completed a River Health pilot study to identify suitable indicators to measure river health. A study of anti-fouling biocides in the nearshore and estuarine environment has also been completed.

Water quality monitoring programs have now been established in most catchments across the Region. These programs are being conducted as partnerships between Local Government Authorities and sub-regional groups with the Department of Water providing substantial technical assistance.

The foreshores of the Swan and Canning Rivers and their tributaries have been assessed, with the data used to better manage these delicate environments and guide investment activities.

The Superficial Aquifer Health Project has identified gaps in the existing superficial aquifer bore monitoring network and will be working with State agencies to install additional bores. This will result in a clearer picture of groundwater levels across the Perth urban area.

Implementing the Ellen Brook and Brockman River Catchment Management Plans continues as part of the Avon Upper Swan Nutrient and Salinity Ameliorate Project.

Environmental water requirements have been established for the Canning River as a key outcome of the Canning Flows Project. These requirements will be incorporated into a Water Allocation Plan for this river system.

The Sustainable Landscaping Strategy has been piloted by a number of local governments across Perth with demonstration gardens established and training events held for local government officers.

Ribbons of Blue continues to promote sustainable catchment management practices to the community. Key activities have included providing professional development opportunities to teachers and conducting educational events such as water quality monitoring.



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

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
Integrated Water Management Program			
<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	104,896	106,338
Water Quality Monitoring & Evaluation Framework	Department of Environment and Conservation	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	Department of Environment and Conservation	22,510	22,819
Swan Alcoa Landcare Program **	Swan Catchment Council	22,510	22,819
Total NHT Budget		1,585,593	1,556,046

* 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 continues to face pressures from a large and increasing population. The demand for housing, coupled with inappropriate urban design, is resulting in the extinction of many species of plants and animals, through fragmentation and land clearing.

Climate change is having a direct and indirect impact on biodiversity. Changes to climate can directly affect species and the ecosystems in which they live, through changes to ambient temperature, rainfall, winds and extreme events. Indirect affects can be caused by changes to fire frequency and timing, the spread and intensity of diseases such as *Phytophthora* Dieback, competition and predation, and altering water flows. Lower rainfall and increased extraction from the Gngangara mound have reduced the water table, which is a potential cause of some of the vegetation death we have seen in the last 12 months.

The vegetation which remains in reserves is threatened by invasive species and inappropriate use. These reserves are often not managed well due to a lack of expertise and resources. Changes to fire regimes, rubbish dumping and inappropriate recreational use are all symptoms of a population which does not value biodiversity or understand the impact of their actions.



Many significant species, along with their habitats and ecological communities are threatened, including wetlands of international importance and migratory bird habitats. Species management now focuses on a 'whole of landscape' approach, rather than concentrating on individual species in isolation.

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

The Natural Diversity Program has enjoyed a number of successes this year.

Stop Dieback the Biological Bulldozer played a key role in organising the Dieback Information Group Meeting, where almost 200 delegates heard about the latest research in *Phytophthora* Dieback and its management. The Project continues to provide training and advice, while lending equipment to all stakeholders and providing mapping and management plans for local governments.

The Perth Biodiversity Project has disbursed over \$100,000 to local governments through its targeted grants program. A Local Government Biodiversity Conservation Capacity Survey showed that local governments' capacity to conserve biodiversity has increased over the last five years. The Local Biodiversity Strategy is continuing with six local government bodies.

The Behaviour Change for Natural Diversity Project has surveyed local residents' attitudes to selected sites and their understanding of threats to their biodiversity. The survey responses have been analysed and the results presented at a workshop to representatives of the community, agencies and participating local governments. Draft action plans recommending a marketing and communication strategy have been prepared based on the outcomes of the survey and observations of current use and threatening behaviours at each site.

The Ecological Linkages Project has completed its analyses of the Perth Biodiversity Project Bird database and completed a literature review and Delphi surveys of experts. All results have been analysed and are being written up as scientific papers.

The Private Landholder Incentives Project is working with four local governments and has developed either an incentive scheme or strategy for each. A report reviewing the incentives available to local government to encourage private land conservation has been produced and distributed.

The fight against dieback has been boosted by the Biodiversity Action Learning Project, which has focussed events on *Phytophthora cinnamomi* dieback interpretation and training in GPS and GIS technologies. Appropriate use of technology can streamline best practice bushland management and increase efficiency.

Skills for Nature Conservation continues to be a valued and popular service to the community with over 200 attending training courses throughout the year.

Invasive Species strategic plans have been developed for two key invasive species. - white weeping broom (*Retama raetam*) and haas grass (*Tribolium uniloe*). These plans provide information on plant biology, ecology, best practice control methods and management. They include actions to date, recommendations, management targets and identification of all stakeholders.

Threatened Ecological Communities have produced a number of recovery actions for 'critically endangered' and 'endangered' ecological communities. Examples include rehabilitating degraded areas through plantings, weed control, fencing, dieback interpretation and mapping, monitoring and investigating the hydrology of the Tumulus Mound Springs community and the Yanchep caves community.

The Western Swamp Tortoise Project is recovering this precious species through careful managing of Ellen Brook, Twin Swamps and Mogumber Nature Reserves. Foxes are being kept out through fences



and baiting. A successful tortoise-breeding program is undertaken at Perth Zoo and captive bred animals are being relocated to Mogumber, Ellenbrook and Twin Swamps, where they are radio-tracked and monitored.

By locating animals and identifying risks to them, the Invertebrates and Forest Fauna project has enabled the Forest Management Branch to select habitats of forest animals and areas rich in biodiversity that need particular care in planning fire management. This is a major step forward for managing these threatened species. Identifying habitats is an integral part of the Forest Management Plan overseen by the Conservation Commission, and planning for fires is a major aspect of the Department's adaptive management program.

In addition, the food sources for Baudin's Cockatoo, in particular *Corymbia calophylla*, have now been put into field assessments for selecting their habitats.

Maps predicting risks to quokkas and invertebrates have been drafted and their habitats outside currently surveyed areas are being examined for future seasons.

Project Dieback has completed the first draft of the Swan Atlas, the risk assessment criteria for the Swan NRM region has been established and strategic broadscale mapping has been completed for local and federal governments and private landholders.

Projects addressing these issues within the Natural Diversity Program are:

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
Natural Diversity Program			
<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 *	Department of Environment and Conservation	119,190	120,828
Behaviour Change for Natural Diversity *	WA Local Government Association	122,566	107,136
Private Landholder Incentive Package *	WWF Australia	105,684	107,136
Biodiversity Action Learning Project	WA Local Government Association	174,451	181,413
Skills for Nature Conservation	Greening Australia (WA)	113,675	115,237
<i>Biodiversity Planning & Threatened Species & Communities Sub-program</i>			
Perth Biodiversity Project	WA Local Government Association	468,205	474,641
Threatened Species Program	Department of Environment and Conservation	465,954	248,732
Total NHT Budget		1,794,709	1,583,201

* New NHT project being implemented in 2006-2008.

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

Sustainable Production Program

Small Business Sector

The Sustainable Production Program continues to deliver innovative solutions to the environmental challenges of small to medium enterprises, agriculture and horticulture. Local and state governments and industry are key partners in the program.



Six local governments are now involved in the Environmental Risk Assessments of small and medium sized enterprises in 11 industrial precincts in the metropolitan area. We are negotiating with a further two local governments who are keen to get involved with the Council's initiative. The State Government is looking at long term funding for the project which will involve assessing up to 5000 industrial premises with the potential to pollute the environment.

In partnership with three local governments, the "Light Industrial Area Improvement Project" has resulted in more than 500 visits to small and medium industrial premises to assess their practices, knowledge and attitudes toward waste and resource management. The Project will work with them to improve Best Management Practices.

Data from these projects has been collected using Personal Digital Assistants developed jointly with software company ioGlobal with data safely stored on a remote, central server.

Consultants are doing research projects looking at extending small and medium enterprises' responsibility for the life cycle of their products, and Natural Resource Management issues in mobile industries.

Guidelines are being developed for designing and developing Industrial Eco-Parks in consultation with local governments, the Westralia Airports Corporation, the Midland Redevelopment Authority and corporate businesses.

An air quality monitoring program has been carried out over 19 months at 11 industrial precincts across the region.

TAFEs and local Industry Training Councils are being consulted to identify opportunities to incorporate Natural Resource Best Management Practices into relevant training packages. Similarly, workshops have commenced in four regional centres in WA to determine any interest or opportunities to deliver Natural Resource Management projects aimed at small and medium enterprises in these local areas.

The Swan Catchment Council has worked in partnership with Edith Cowan University to develop and trial a website with specific Natural Resource Management designed to assist small and medium enterprises. The aim is to determine how useful and accessible this type of educational information is for small and medium enterprises when provided through a web site.

Rural Land Use

The Program is now playing a significant role within the rural land-use sector. Due to the interest and growth of this program we have recently appointed a dedicated Rural Land-use Project Development Officer, Sandy Pate, who brings to the program an excellent knowledge base and is well known and respected throughout the industry. Sandy is assisted by the Rural Land-use Reference Group with representation from the work of a significant number Agricultural Industries. Agricultural projects continue to grow covering broad acre farming, intensive horticulture with peri urban land-use identified as a significant issue throughout Australia.

Rural land-use activities continue to develop;

- Salinity management within the Ellen-Brook & Wooroloo Catchments has been a major focus. Successful progress has been achieved in remediation of salinity sites within these two catchments.
- Funding of VegetablesWA has produced phase one of the 'Good practice Guide' for vegetable growers, which has now been released. Further development of this guide will continue to June '08.
- A consultant has been engaged to develop 'user friendly' best practice guidelines for grape growers and orchardists. This project will be completed June'08.



- ‘Waterwise on the Farm’ project continues to be successful with demonstration sites benchmarking and monitoring water and nutrient use. Training days for farmers contribute to be well received and highly successful.

Projects addressing these issues within the Sustainable Production Program are:

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
Sustainable Production Program			
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
Total NHT Budget		643,781	595,583

* New NHT project being implemented in 2006–2008.

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

Coast and Marine Program

Perth’s coastal and marine environments are a precious resource, supporting a diverse and unique range of plants and animals and attracting thousands of users each year.

However, the seemingly insatiable demand to live, work and visit the coast and its waters, places an increasing pressure on the environment. Add to this our expanding population - the result of Western Australia’s buoyant economic climate - and our coast and marine environments face possibly their greatest threat to date.

If we are to sustainably manage our marine and coastal environments we must improve our understanding of them so we can identify the key threatening processes they face. The Council has placed a high priority on determining key marine indicator species to help future management. Our Marine Indicator Project comprises four components:

One project is examining the community structure of the Blue Swimmer Crab and Pink Snapper - two key recreational indicator species. It is also establishing a system to monitor the abundance and distribution of the sub-tidal community and assessing changes in the populations of key indicator species, and comparing them with long term data from the Department of Fisheries.

Another project is analysing Department of Fisheries’ data on near-shore fish species to determine long term changes in their abundance. Strategic catch and release sampling is being undertaken to complement existing data, which will be used to monitor change over time.

Long term monitoring sites are also being established to determine the impact of human use and climate change on shallow water marine communities. Sites in high use and sanctuary zones will be monitored twice-a-year.

The Swan Catchment Council is using satellite imagery with ground-truthing surveys to develop high resolution maps of substrate and submerged vegetation in shallow marine waters. Marine habitat maps will be used to assess changes to habitats at the bottom of the water over time.



Another vital project is repeating a survey of reeftop molluscs and echinoderm animals at Watermans, Trigg and Cottesloe. This will be extended to Rottnest in 2008. Current data will be compared with extensive data collected using the same methods at the same sites between 1982 and 1986.

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

Program	Delivered by:	Investment (\$)	
		2006/07	2007/08
Coast and Marine Program			
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 Environment and Conservation	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
Total NHT Budget		610,917	448,170

* New NHT project being implemented in 2006-2008.

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

Indigenous Cultural Heritage Program

The Swan Catchment Council's Indigenous Cultural Heritage Program continues to meet the aspirations for Cultural Heritage that are central to the Council's Natural Resource Management ideals. The program is being carefully guided by the Council's Indigenous NRM Advisory Group which has overseen the initiation of a number of innovative projects.

In 2006-07 the Council's Indigenous wetlands officer has mapped out and prioritized wetland areas of significance to Indigenous people. She has also created a planning tool - a Heritage Management Plan Template - that will prove invaluable to stakeholders in their future plans for the Region's wetlands.

The template has created considerable local interest among planners. Perth Airport's management has agreed to fully implement the template over the whole of the area it manages.

In similar vein the Council's Indigenous coastal and marine officer is mapping and establishing priorities for marine and coastal areas that are significant to Indigenous people.

The Council's Indigenous Stories Project is educating the broader community about Indigenous people's relationship with their natural environment. Two CDs by respected Indigenous elder Noel Nannup have already been produced, and a third is nearly finished. These lively and entertaining CDs are sure to educate and entertain.

Our educational efforts don't stop there. The Council conducts a number of workshops each year for local government and the general community to educate the broader about Indigenous people and their unique culture.

The Council is keen to promote the value of including Indigenous people at the heart of Natural Resource Management and recently conducted the Caring for Country Tour to showcase the great possibilities that can arise when Indigenous people are front and centre in Natural Resource Management.



Local Government Liaison Program

A major focus of the Swan Catchment Council's Local Government Reference Group in the past year has been developing a strategic direction to guide its work. This has been inspired by the understanding that NRM is a core business for local governments. Local governments are best placed to work with the community to deliver better management of rivers, streams, wetlands and native vegetation, and to ensure that a wide range of land uses are sustainable and do not cause pollution.

The Local Government Reference Group believes that engaging local governments in NRM should be a key part of their commitment to sustainable local government.

The group is developing a range of "tools" to implement this strategic direction in the Region. These include:

- Promoting and supporting a State strategy for Integrated Natural Resource Management to clarify the strong role local governments can play;
- A business model and advocacy strategy to promote Integrated Natural Resource Management in the region;
- A draft strategic plan for local government work in Integrated Natural Resource Management which will be distributed to all regional local governments;
- A working definition for Natural Resource Management and Environmental Protection to show all the elements that need including – the first time a definition has been "put on the table" which will show where investments are going and clarifying roles and responsibilities;
- A table of strategic and operational issues is being used to track the group's work, including how local governments work with the State Government on climate change and water management;
- A pilot Natural Resource Management Program and Project Information System which will show where work is being done and identifying gaps, overlaps and duplication, and
- A 'Links Model' is being developed to show how Natural Resource Management work contributes to broad objectives, such as those for Indigenous affairs and sustainable production.

The group is working with a number of local governments to develop models to show how Natural Resource Management can be better integrated with other local government work and how Natural Resource Management information can help make better decisions.

The Local Government Reference Group has a vision for the Swan Catchment Council to work with all regional local governments that will take several years to come to fruition. When it does, local governments will be working with their communities to deliver on-ground works to protect and conserve the precious natural resources across the landscape. Threatening processes, like rural and other industries will be sustainably managed to provide income while not degrading the environment.



The Swan Regional Strategy for Natural Resource Management (the Strategy), which was accredited jointly by the respective Federal and State Ministers in December 2004, is about the ecological management of a major urban region. The Strategy incorporates Inspirational Targets, Matters for Target, Resource Condition Targets and proposed Management Actions (together with appropriate indicators for monitoring and evaluation) for each Asset Category.

The Swan Region Strategy for Natural Resource Management identifies 15 Resource Condition Targets around which all investment is based. These targets are focused on key assets in the region such as rivers, wetlands, biodiversity, land, coastal and marine, and cultural heritage values.

Table 1: Number of Resource Condition Targets and Management Actions in the Swan Region Strategy

Theme	Resource Condition Targets	Matters for Target	Number of Management Action Targets
Land	2	Land Salinity, Soil Condition	9
Water	5	Aquatic Ecosystems, Nutrients, Turbidity & Particulate Materials, Salinity	22
Biodiversity	3	Native Vegetation, Significant Species, Invasive Species	15
Coastal & Marine	3	Coastal Habitats, Marine Habitats, Marine Fauna	15
Air	2	Air Quality	3
Cultural Heritage		Indigenous history, Institutional Opportunities, Employment in NRM, Partnerships	3
Regional Capacity		Adaptive Management, Strategy Linkages, Regional Structure, Information System	4
Total	15		71

The Strategy has articulated seven Aspirational Targets to meet the challenges facing each Theme.

- Improve land condition and ensure that land use planning and development is sustainable and appropriate to the land capability and suitability.
- Improve the quality, ensure appropriate and environmentally sustainable use, and minimise impacts, to maintain water resources in all aquatic systems in the Region.
- Conserve, maintain and enhance biodiversity and natural habitat of all species in the Region's Indigenous plants and animals, natural fungi and micro-organisms including their genetic variation, and the functionality of the ecosystems which contain these species.
- Conserve, maintain and enhance coastal and marine biodiversity, and improve marine water quality to ensure the ecological integrity of coastal and marine systems.
- Improve air quality in the Region to ensure healthy ecosystems.
- Protect, enhance and incorporate cultural heritage values within the Region to achieve sustainable natural resource condition outcomes.
- Build regional capacity to promote attitudinal, behavioural and institutional change to achieve sustainable natural resource management outcomes.

The Strategy also sets out Targets for Resource Condition and Management Actions under each of the seven Themes. These Matters for Target and their associated Management Actions are the focus of the Investment Plan.



Summary of Swan Catchment Council Resource Condition Targets

Resource Condition Target Number/Matter for Target	RCT as appears in Swan Natural Resource Management Strategy	2007 Revised Target
LR1 Land Salinity	Reduction in the area of land affected by salinity, within the Avon Upper Swan National Action Plan Region, by 2020 (with a quantified target set by December 2005)	A 10% reduction in the area of and affected by salinity within the Avon Upper Swan National Action Plan Region by 2025 as measured by area of land returned to production or native vegetation.
LR2 Soil Condition	Maintain and improve soil condition, as measured at representative sites, including extent of water erosion, water logging and acid sulfate soils, by 2020 (with a quantified targets set by December 2005)	Maintain and/or improve soil condition in the Avon Upper Swan National Action Plan Region by reducing the area affected by soil erosion by 3% and reducing land affected by water logging by 3.5% by 2025.
WR1 Aquatic Ecosystem Integrity (Rivers)	Maintain and improve condition of inland aquatic ecosystem integrity, as measured at representative sites, by 2020 (with quantified targets for major rivers and waterways in the Region set by 2005).	Maintain and improve condition of inland aquatic ecosystem integrity, as measured at representative sites, by 2025 (with quantified targets for major rivers and waterways in the Region set by 2008).
WR2 Aquatic Ecosystem Integrity (Wetlands)	Maintain and improve condition of inland aquatic ecosystem integrity, as measured at representative sites, by 2020 (with quantified targets for wetlands in the Region set by 2005).	Maintain and/or improve macroinvertebrate community composition at 100% of 2006 condition by 2025 at the following representative wetlands: Thomsons Lake, Forestdale Lake, Ellen Brook Nature Reserve Wetlands, Chittering/Needonga Lakes, Wannamal Lakes, Munday Swamp, Bluegum Lake, Booragoon Lake, Lake Monger, Lake Richmond, Beeliar Wetlands, Lake Balannup, Bibra Lake, Gibbs Road Swamp, Lake Jandabup, Lake Gwelup, Lake Joondalup, The Spectacles, Lake Loch McNess, Coogee Spring, Becher Point Wetlands and Paganoni Wetlands.



Resource Condition Target Number/Matter for Target	RCT as appears in Swan Natural Resource Management Strategy	2007 Revised Target
WR3 Nutrients in Aquatic Environments	Maximum concentrations, for priority waterways, do not exceed 0.1 mg/L for total phosphorus (TP) and 1.0 mg/L for total nitrogen (TN), by 2020.	Maximum concentrations for Swan-Canning estuary sub-catchments do not exceed 0.1 mg/L for total phosphorus (TP) and 1.0 mg/L for total nitrogen by 2025 as measured in 25 sub-catchments based on approved ANZECC methodology.
WR4 Turbidity	Maintain and improve condition of aquatic environments in the Region, as measured at representative sites, by 2020 (with quantified targets for turbidity/suspended particulate matter set by 2005).	The Aquatic Sciences Branch of the Department of Water will analyse existing data by June 2007 in order to provide advice on a target for turbidity. It is anticipated the target will be worded as follows: Maximum turbidity concentrations for the Swan-Canning estuary sub-catchments do not exceed XX mg/L by 2025 as measured in 25 sub-catchments based on approved ANZECC methodology.
WR5 Surface Water Salinity	Maintain and improve condition of surface waters in priority catchments in the Avon Upper Swan Region, as measured at representative sites, by 2020 (with quantified targets to reduce salinity set by 2005).	The Aquatic Sciences Branch of the Department of Water will analyse existing data by June 2007 in order to provide advice on a target for surface water salinity. It is anticipated the target will be worded as follows: Annual salt load from the surface waters of the Avon Upper Swan Region does not exceed XX tons as measured at a) Ellen Brook Gauging Station (Railway Parade), b) Brockman River Gauging Station (Yalliwirra) and c) Karl's Ranch Gauging Station on the Wooroloo Brook by 2025.
BR1a&b Native Vegetation Extent and Condition	BR1a The comprehensiveness, adequateness and representativeness (CAR) of the protected area system (including formal reserves and off-reserves) is improved by 50% by 2015 based on 2005 baseline data.	BR1b Maintain and improve the condition of high priority native vegetation (including formal reserves and off-reserves) by 2020, based on 2005 baseline data.



Resource Condition Target Number/Matter for Target	RCT as appears in Swan Natural Resource Management Strategy	2007 Revised Target
BR1a&b Native Vegetation Extent and Condition <i>(continued)</i>		BR1a The extent of native vegetation in the Swan Region is maintained at 284,269 ha, representing 60% of the 2005 extent of 473,782 ha by 2025 guided by the principles of the CAR (Comprehensiveness, Adequateness and Representativeness) System. BR1b Maintain and/or improve the condition of identified priority native vegetation, based on maintaining or improving the 2005 condition score generated from Natural Area Initial Assessments at 60% of the 20 nominated sites by 2025.
BR2 Significant species and ecological communities	50% of critical habitat for identified significant species and ecological communities protected by 2014.	Maintain the rank of 84 species and ecological communities, and improve the rank of 3 of the 87 species and ecological communities listed under State legislation by 2025 (rank as defined by the State in 2006 using the World Conservation Union (IUCN) Code.
BR3 Invasive Species	Reduction in impact of regionally significant invasive species by 2020 (with a quantified target set by December 2005). invasive species (based on the	Reduction in impact of regionally significant invasive species by 2025, specifically: a) There will be no new 2005 invasive species list*1) established in the region by 2025; and b) 10% reduction in the presence of invasive species in locally significant natural areas based on the count (20 nominated Natural Area Initial Assessment sites x 10 invasive species) by 2025.



Resource Condition Target Number/Matter for Target	RCT as appears in Swan Natural Resource Management Strategy	2007 Revised Target
CMR1 Estuarine, coastal and marine habitat integrity	Maintain and improve the condition of terrestrial coastal habitats in the Region, as measured at representative sites, by 2020 (with a quantified target set by 2005).	Maintain and/or improve the condition of identified priority coastal native vegetation, based on maintaining or improving the 2005 condition score generated from Natural Area Initial Assessment at 60% of the 14 nominated sites by 2025.
CMR2 Estuarine, coastal and marine habitat integrity	Maintain and improve the condition of marine habitats in the Region, as measured at representative sites, by 2020 (with a quantified target set by 2005).	Maintain and improve the condition of marine habitats in the Region, as measured at representative sites, by 2025 (with a quantified target set by 2008).
CMR3 Estuarine, coastal and marine habitat integrity	Maintain and improve the condition of marine fauna in the Region, as measured at representative sites, by 2020 (with a quantified target for key indicator species set by 2005).	Maintain and improve the condition of marine fauna in the Region, as measured at representative sites, by 2025 (with a quantified target for key indicator species set by 2008).
AR1 – Air Quality (No Matters for Target Addressed)	Continue to progress towards improved air quality, with Resource Condition Target(s) to be set for air quality by December 2006.	This target will not be developed further. The Swan Catchment Council will be following the Protocols to remove this target prior to June 2008.
AR2 – Climate Change (No Matters for Target Addressed)	Set Resource Condition Targets by September 2006 to manage climate risk and reduce risk of major environmental, economic or social outcomes from drought or coastal land impacts.	This target will not be developed further. The Swan Catchment Council will be following the Protocols to remove this target prior to June 2008.



Recipient of Local Government Recognition Award, Shire of Kalamunda President Cr Elizabeth Taylor. Mr Martin Whitely, Member for Bassendean, Mr Wayne Osborne, Managing Director ALCOA Australia.

The Swan Alcoa Landcare Program



The Swan Alcoa Landcare Program (SALP) provides funds for community groups or local governments working with community groups involved in on-ground revegetation and rehabilitation projects in the Region. The program, established in 1998, has funded more than 690 projects worth \$3.8 million across the metropolitan area.

Alcoa of Australia Limited has played a vital role in providing more than \$2 million since 1998 and has committed a further \$750,000 providing the community with a secure source of funding until 2009. The Swan River Trust supports initiatives to protect the Swan and Canning rivers, and has provided \$1 million to Program recipients since 1999. The Swan Catchment Council manages the program with support from staff at Alcoa and the Swan River Trust.

Community involvement has played a key role in developing the SALP funding process. Community assessment panels decide which projects will be supported each year, ensuring they meet local environmental priorities.

Projects involve partnerships between community groups and local governments, other local sponsors and State Government agencies. In-kind support and additional funding from project partners substantially increases the total value of SALP.

Funding is available for a wide range of activities in the Swan region addressing the following regional priorities:

- retaining, restoring and managing bushland, coastal, wetland and riverine vegetation; and
- protecting and enhancing the quality of surface water (streams, rivers and wetlands) and groundwater.

Projects range in size, and planning and technical advice is available.

The Shire of Kalamunda was a stand out recipient for the Local Government Recognition Award with an estimated \$59,400 in funding support and in-kind contributions for the Woodlupine Brook Restoration Project in 2005. In addition, the Shire has also contributed a further \$10,000 to other SALP projects in your jurisdiction. The Woodlupine Brook Restoration Project received almost \$50,000 in SALP funding in 2005.

There have been 111 applications for funding for the 2008 Funding round. These are being assessed by expert panels from each sub region, the Council and the Swan River Trust to determine project eligibility, review project budgets and rank according to merit on set criteria.

Sub Regional Forums

The Swan Catchment Council is developing its stakeholder engagement, through the development of five sub regional forums (corresponding with the five sub regions). In 2007, the Sub Regional Forums are providing a key mechanism for gathering sub regional views and input, regarding investment planning.

Membership of the sub-regional forums consists of community and local government representatives who have elected a community co-chair and local government co-chair. It is envisaged that the Sub Regional Forums will develop into more formalised reference groups in 2008.

The Sub Regional Forums are creating closer links between community and local government at a sub-regional level and providing an effective and efficient mechanism for community and local governments to bring strategically important Natural Resource Management issues to the attention of the Swan Catchment Council.



2006-2008 Investment Plan

In 2006/2007 the Swan Catchment Council invested into regional and strategic Natural Resource Management programs and projects within the Swan Region, in accordance with the 2006-2008 investment plan. This investment includes millions of dollars from the Australian and State Government Natural Heritage Trust, Corporate sponsorships and partnerships with Local Government Authorities.

It is hard to quantify the leverage of additional funds achieved through the Regional process. There are over 300 community groups contributing volunteer effort in managing natural areas in partnership with Sub-regional Groups, and the 34 Local Governments in the Region are almost all engaged in assisting with one or more projects of the Investment Plan. The following direct contributions can be identified:

Organisation	Program/Project	Contribution
Waste management Board	Light Industry Project	\$170,000
ECU	Light Industry Project	\$30,000
National NHT	Light Industry Project	\$2,665,000
CSBP	Light Industry Project	\$40,000
Alcoa	Swan Alcoa Landcare Program	\$250,000 per annum
Swan River Trust	Swan Alcoa Landcare Program	\$350,000 per annum
Chevron Texaco	Coast and Marine Program	\$5,000
BHP Billiton	Coast and Marine Program	\$25,000
City of Cockburn	Coast and Marine Program	\$3,000
City of Rockingham	Coast and Marine Program	\$3,000
City of Fremantle	Coast and Marine Program	\$3,000
City of Stirling	Coast and Marine Program	\$3,000
City of Joondalup	Coast and Marine Program	\$3,000
City of Wanneroo	Coast and Marine Program	\$3,000
City of Cambridge	Coast and Marine Program	\$3,000
Lottery West	Indigenous Program	\$128,650
Total		\$3,684,650

In addition to the confirmed contributions above, the following partnerships are in the negotiation stage:

- The Maali Foundation set up through the National Trust to receive donations for the Cultural Heritage Program will be launched 28 March 2007.
- A partnership has been formed with UWA, Griffith University and RMIT to submit \$1.7 million application for research into impacts, tools and strategies to deal with peri-urban issues.
- A partnership has been formed with Curtin University to submit a \$5 million application for research into light industry.
- A partnership has been formed with Water Corporation to improve water quality in the Ellenbrook catchment and which is currently developing a plan for managing the Bayswater Catchment with the City of Bayswater.
- The Department of Planning and Infrastructure have committed \$82,550 to maintain the Indigenous Coastal Officer (Coast Marine Program) Until June 2008.
- Kwinana Industries Council (Coast and Marine Program) have agreed to support a Coastcare Fishing Line project (\$25,000) and are currently finalising the agreement.
- A partnership has been formed with CSIRO to deliver a \$1,500,000 project, in part funded by a successful Premier's Water Foundation Grant, to investigate options and risk associated with diverting both stormwater and wastewater into coastal aquifers and others further inland over



Gary Muir from Great Southern TAFE entertained conference goers with a lively description of the development of a unified system of Dieback signs.

time. The project also targets factors affecting urban water reuse, total water cycle management and water sensitive urban design.

The following examples provide some highlights of specific achievements during 2006-2007.

DIG 07 at cutting edge of Dieback research

This year's DIG 07 Conference was bigger and better than ever, with record numbers packing the conference room of the Fremantle Maritime Museum for the latest in the science and management of Phytophthora Dieback, the "biological bulldozer".

A broad agenda covered everything from a unified system of Dieback warning signs to the impact of the disease on small native mammals and reflected the broad holistic approach that is being brought to bear on the problem.

Danielle Witham, natural diversity program manager for the Swan Catchment Council, said the scientific research and management practices on show were world leading.

One highlight was the development of molecular diagnostic tools for detecting *Phytophthora cinnamomi* from soil samples developed by Murdoch University's Centre for Phytophthora Science and Management.

"For somebody trying to manage Phytophthora Dieback and getting mapping done I think the molecular technology is a really good advancement – it's about having that additional certainty when you're having that testing done," Ms Witham said.

The presentation on efforts to contain the disease in the Fitzgerald River National Park was also described as groundbreaking work.

"From a management perspective it's pretty cutting edge. They're trying to close-off this entire area, and while the construction of the fence is just one element of a complex project, I don't think this approach is being used elsewhere," Ms Witham said.

User-friendly guide for vegetable growers

Today's vegetable growers are seeking high yields of good quality produce with minimal environmental impact, while consumers are searching the shelves for perfect vegetables. The time is ripe, then, for the Good Practice Guide – a practical guide to sustainable vegetable production produced by Vegetables WA and the Swan Catchment Council.

With diminishing water reserves and the demand for minimal chemical use the old management practices are no longer acceptable. The guide is an attractive colour manual with facts and figures and up-to-date advice on water use and nutritional management. It's essential reading for growers farming some of the least fertile soils in the world.

The guide is sure to stimulate the interests of growers seeking practical information on current best practice in the industry. It is also particularly timely given recent questions about the safety and environmental credentials of vegetables sourced from overseas.

Ecological Linkages – the future of our urban animals

The Ecological Linkages Project is a new research initiative of the Council that is being undertaken by The University of Western Australia. It is investigating the impact of urban habitat loss and fragmentation on animals. The project aims to determine which species are most at risk from urbanisation in the Region, and to develop strategies for re-connecting precious habitats.

To date the research has reviewed existing studies, undertaken a survey of expert opinion and analysed a large amount of data on birds to determine those species that are most at risk when their habitats become isolated and fragmented.

The project found that 54 species of birds are dependent on native vegetation and are at risk from continued habitat loss in the Swan Catchment. For some of these species, ecological linkages are



The Splendid Fairy Wren is just one of a number of species threatened by habitat loss. Photo by Rob Davis



important in connecting isolated populations to increase the opportunity for dispersal and interbreeding.



Maali Foundation continuing a tradition of stewardship

The launch of the Maali Foundation in March was a great step forward for the tradition of Nyoongar stewardship of the Region that has been going on for at least 40,000 years.

By facilitating the purchase or transfer of properties and putting it under the management of Indigenous Australians, the Foundation aims to rehabilitate bushland, conserve cultural values such as Indigenous medicines and food, and educate the broader community about Indigenous values.

It is a partnership between the Council and the National Trust of Australia (WA). The Foundation's patron is Lt Gen (Retd.) John Sanderson, AC, who is special adviser to the WA Government on Enhanced Aboriginal Participation in the Social and Economic Development of the State.

Lt General Sanderson believes the Maali Foundation is an important initiative that will enable Nyoongar people to maintain and revitalise the cultural connections that they have with the land. In doing so it will promote social cohesion and ensure that the children have a solid foundation to tackle the many challenges presented to them in a rapidly changing world.

Beverley Rebbeck, the Council's Indigenous Natural Resource Management Advisory Group Chair, believes that organisations that support the Maali Foundation will become part of a program that strengthens the ability of Indigenous Australians to participate in what comes quite naturally to them – managing natural resources in a sustainable and effective manner.

The Foundation is currently seeking donations from corporate bodies throughout Australia and even internationally to support its work.

Sustaining small business

The Council's national pilot project, 'Sustaining Small Business' will help small and medium sized enterprises develop a better understanding of Natural Resource Management issues and adopt better practices wherever practical.

The project targets enterprises with 200 employees or less, a category that makes up some 95.6% of Australian businesses.

While past projects have focused on pollution control and waste management, this project also addresses the critical issues of efficient water and energy use. The project will also monitor stormwater in partnership with the Department of Water.

The major focus of the pilot project will be to:

- Evaluate and improve the practices of small and medium sized enterprises by assisting and encouraging them to comply with environmental legislation and best practice – for example, the proper storage of hazardous materials and disposal of harmful waste;
- Implement a 'continuous improvement' approach that encourages businesses to adopt sustainable practices, such as waste minimisation, recycling, and water and energy efficiencies;
- Establish and trial guidelines for developing new industrial estates;
- Research and report on the corporate sector's responsibility for the life cycle of their products;
- Explore opportunities to improve the environmental knowledge and skills of the future workforce through trade education and training.

One innovative initiative has been the development of a data collection system which has been developed in partnership with software company ioGlobal. The use of Personal Digital Assistants



Minister for Indigenous Affairs, the Hon. Michelle Roberts (right) is greeted by a member of the Gya Ngoop Kobori Nyoongar Dance Group at the Maali Foundation launch.



(PDAs) allows for standardised and centralised data collection and collation.

The Sustaining Small Business project is examining how successful initiatives can be rolled out nationally, to urban and regional centres, and what requirements are necessary for the project to be sustainable in the long term. A recent Canberra workshop organised by the Council saw a determination by those attending to move forward on a national level.

A key theme of the project is that environmental matters need not be a burden to businesses, but rather an opportunity to develop more efficient and sustainable work practices which save money through better waste management and resource use.



The discovery of a rare Tumulus Spring was an exciting discovery for all concerned

Wetland Watch discovers threatened ecological community

During May and June officers from the Wetland Watch Program identified two unusual wetlands while conducting site assessments on two Bullsbrook properties. Their suspicions that the area contained a special wetland community called Tumulus Springs, (organic mound springs) were confirmed by officers at the Department of Environment and Conservation (DEC).

Tumulus Springs are registered as a Threatened Ecological Community in WA and listed as endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. Prior to this discovery, only four intact mound springs were known to remain on the Swan

Coastal Plain.

Mound springs occur where hydraulic pressure forces ground water in the Gnangara Mound to the surface. They are characterized by water permanently seeping from mounds of peat covered in dense vegetation and support an unusual assemblage of plants and animals.

The landholders were amazed at the discovery and both are enthusiastic to work with Wetland Watch to conserve these special ecosystems. Wetland Watch is confident they can be protected from threatening processes and will work with the landholders and DEC staff to restore the sites to their ancient glory.

Wetland Watch is funded by the NHT through the Council's Integrated Water Program.

Coastcare encouraging community involvement

The Council's Coastcare Program continues to play a vital role. It's been busy mobilising community groups to undertake coastal planting and rehabilitation, building links between the Coastcare program and the corporate community, building capacity for community groups and local government and running training workshops and tours of the coastal zone for local government officers.

The Kwinana Industries Council has a vibrant partnership with the Swan Catchment Council that is encouraging community involvement in managing the natural resources of the coast and coordinating the sort of on-ground work that will improve our coastal and marine environments.

The signing of the Memorandum of Understanding between the Council and the Kwinana Industries Council was celebrated in May with the planting of a Tuart tree at Wells Park on Kwinana Beach.

"This agreement puts in place a partnership that will help local government and community groups to deliver a range of coastal initiatives," said Chris Oughton, Director of the Kwinana Industries Council, at the tree planting.



Left to right: Colin Heinzman, Chairman of the Council, Chris Beaton, environment officer of the Town of Kwinana and Chris Oughton, director of the Kwinana Industries Council celebrate the signing of a Memorandum of Understanding between the Council and the Kwinana Industries Council.



Waterwise on the Farm

Waterwise on the Farm is a collaborative irrigation research and training initiative being developed and delivered by the Council with the Western Australian Department of Agriculture and Food. The project works with a range of agricultural and horticultural networks to raise awareness of sustainable irrigation management practices and to identify opportunities for further improving on-farm water use efficiency.

It aims to provide irrigators with a range of practical skills and relevant information to help them improve productivity and profitability while using water efficiently.

The project delivers industry training courses to provide irrigators with relevant information to enhance their understanding of soil and water relationships and crop water requirements. The workshops also aim to provide growers with a range of practical skills to assist them in evaluation the performance of their irrigation system, develop water budgets and schedule their irrigations more effectively.

In 2006-2007, training courses were presented to 55 participants from the vegetable, production turf, orchardist and wine/table grape industry sectors. One workshop was also delivered to various employees from the department of Water to assist staff in understanding the complex relationship between water licensing, crop water allocations, scheduling techniques and potential influence that poor system uniformity can have on water consumption.

The project currently administers eight research and demonstration sites, which are used for field days and to provide growers with additional educational opportunities. In-field equipment has been installed at these sites to monitor local weather conditions, water consumption patterns, soil moisture status, and the movement of nutrients through the soil. This data supports the training courses and provides important case studies which other growers can learn from and adapt to suit their circumstances.



Demonstration by Cameron McPhee, Waterwise on the Farm Coordinator.

Making light work of light industry's impact

One "small" project with a potentially big impact on the work of local government officers has been the Council's work on developing PDA's – Personal Digital Assistants – to monitor and record the environmental impact of small industries.

Working with software company ioGlobal, the Council has developed a hand-held computer to replace the paperwork normally associated with monitoring light industry. Inspectors from local governments or other environmental monitoring organisations can use the PDAs to enter relevant data in a digital form which can then be transmitted to a central database.

The benefits are two-fold. Firstly it saves time, eliminating the need to transfer data from assessment forms onto computer databases. Secondly, it helps accumulate environmental data on a regional, state-wide or national level and provides a "big picture" view of small industries' environmental impact.

The PDAs are a national pilot project funded by the Australian Government. The aim is to get the technology taken up by local governments around Australia. Software partner ioGlobal has more than enough capability to support a national program.



Peter Male (left) and Scott Favacho, the Council's industry project coordinators, with the PDAs that are making monitoring small industry's environmental impact a lot easier.



The Swan Catchment Council is progressing with the development of Investment Plan 4 for post June 2008. Program Logic has been used to develop the major steps over a 20 year timeframe for each asset class, and for the major impacts on assets :

- Broadacre agriculture
- Intensive horticulture
- Small rural landholders
- Light industry
- Invasive species

These major steps will form the basis for our new Management Action Targets and will guide our Investment Planning. A resource economist has been recently engaged to consult with State NRM Agencies to gain endorsement of the major steps, and to determine the role which they are likely to play in the delivery of each step. A similar process will be undertaken with Local Government.

This should allow identification of the investments to be made by the Swan Catchment Council to complement the work of its partners.

Governance

In May 2006 the Swan Catchment Council was audited by the NRM Audit and Review Branch of the Department of Agriculture and Food on adherence to governance. Significant progress has been made in all areas that were identified.

In October 2006 a comprehensive Policy and Procedures Manual commenced and 50 high priority policies have now been endorsed and approved by the Council. A series of in-house training sessions have made council staff aware of these Policies and Procedures. The sessions served as a reminder of the Council's constitution and vision statement and the role and importance of policy and procedure.

A short survey on training needs and staff development in the work place was circulated to find out how we need to improve or revise the skills of our staff. Many training courses have already been carried out including a workshop for managers on empowering their staff, team management and delegation. Staff have also received communications training on presentations and report writing, training for cross cultural awareness and First Aid. Project Proponents have not been forgotten, with a presentation on reporting to develop and strengthen the Council's partnerships with them.

A forum for sub regions and community members developed a plan for electing community members to the Council and a Corporate Governance Policy has been developed and endorsed, with appropriate training for SCC Members and Reference Groups. The appointment of an operations manager has enhanced internal control of project funding and management and an external Certified Accountant was engaged as Treasurer for the SCC in February 2007.





swan catchment
council

PO Box 2206 Midland WA 6936
Tel: (08) 9374 3333 Fax: (08) 9374 0685
www.swancatchmentcouncil.org



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