

City of Ryde

State of the Environment Report 2001-2002



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Chief Executive's Foreword



The State of the Environment Report is fundamentally a statutory obligation but more importantly it is a report for the local community reflecting the Council's management strategy for the local environment.

Whilst the Federal and State governments set overall Environmental policies, it is local government who plays an integral part in managing, developing and protecting the environment at the community level.

Often the challenge for local government is to carefully ensure a balance between urban development, economic and social needs with environmental protection.

The City of Ryde has implemented a number of environmental programs over the past year which have all proved successful in contributing to environmental control and protection.

The Brush Farm Park noxious weed strategy is an innovative program to involve residents in preventing weed infestation. Council received a Highly Commended Award in the 2001-2002 Local Government Excellence in the Environment Awards for this work.

Over the past year Council has been actively incorporating sustainability principles into its development controls. For example features of the new development controls for Meadowbank employment area include requirements for energy efficiency, facilities to restore recycling, water conservation and improving cycling and pedestrian amenity.

To protect water quality by reducing stormwater pollution, four humeceptors have been installed in the Eastwood shopping centre car parks. A stormwater education program involved the installation of informational signs in the car park and stencilled drawings on the drains in the car park and shopping mall. The project also included a promotion at the Eastwood shopping centre and a display in the local library.

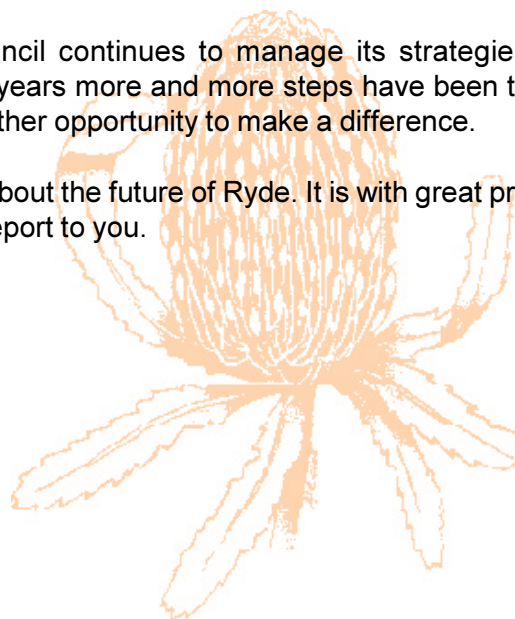
These programs are a few examples of Council's determination to wisely manage the local environment but to effectively achieve sound environmental strategies depends on the assistance dedicated volunteer groups, local residents and businesses.

On-going community consultation will ensure Council continues to manage its strategies in an ecologically sustainable manner. Over the past few years more and more steps have been taken to positively benefit the environment but there is still further opportunity to make a difference.

We look forward to the next year and are optimistic about the future of Ryde. It is with great pride that I present the 2001-2002 State of the Environment Report to you.

A handwritten signature in black ink, appearing to read 'Michael G McMahon'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Michael G McMahon
Chief Executive



Highlights

Brush Farm Noxious Weed Strategy

The Brush Farm noxious weed strategy is an innovative program to involve residents in preventing weed infestation of Brush Farm Park. Over the past year a Council officer visited over 400 properties, identifying weeds and providing advice to residents on how to remove them. Residents were encouraged to remove weeds by the provision of a free weed collection service and free native replacement plants. Over 41 tonnes of weeds were removed from residential properties.

Sustainable Building Controls

Over the past year the City of Ryde has been actively incorporating sustainability principles into its development controls. For example features of the new development controls for Meadowbank employment area include requirements for: energy efficiency, facilities to store recycling, water conservation and improving cycling and pedestrian amenity. Other development controls encourage the installation of rainwater tanks for watering gardens, require sediment and erosion control plans and recycling of construction and demolition waste.

Stormwater Education Program at Eastwood

To protect water quality the City of Ryde installed four humeceptors in the carpark of Eastwood shopping centre. In order to encourage the community to not pollute the waterways the City also conducted a stormwater education program involving installing educational signs in the car parks and stencilling messages on drains in the carpark and in the mall. The project also included a one day promotion at the shopping centre and displays in the Eastwood library.

Bushcare Volunteer Program Expanded

The bushcare program has significantly expanded as a result of employing a Bushcare Volunteer Co-ordinator. The number of bushcare groups have increased and volunteers nearly doubled their efforts this year providing over 7600 hours of bush regeneration work. The Bushcare Volunteer Co-ordinator also developed occupational health and safety procedures, a pesticide policy and a bushcare logo to promote the program.

Caring for Heritage

One hundred and thirty heritage items have been included in the draft Heritage Local Environment Plan. For the first time Council has employed a part time Heritage Officer whose role is to provide advice to Council and the community about caring for items of heritage significance. This year the Glades Bay Park section of the Aboriginal Gamaraigal Heritage walk was completed. The walk features interpretative signage with line drawings by renowned Sydney artist Julie Morris.

Recycling Household Clean Up Waste

The City of Ryde is now recycling all metal goods and greenwaste collected in household cleanups. All metal goods including large household appliances are recycled by Metalcorp. Greenwaste is taken to Waste Service Transfer Station at Wicks Road, where it is shredded and stock piled before being transported to Australian Native Landscaping at Eastern Creek for composting.

Introduction

Since 1993 Councils in NSW have been required by law to submit an annual State of the Environment Report. This year the City of Ryde has produced a supplementary report covering the period from 1 July 2001 – 30 June 2002. A comprehensive report will be produced next year.

Structure of State of the Environment Report

The report is based on the broad headings of built environment and land, water, air, biodiversity, waste, noise and heritage which is the approach suggested by the Department of Local Government. This year some changes were made to the structure of the report, with transport being included in the Air chapter because vehicle emissions are now the major cause of air pollution in Sydney. Open Space has been incorporated into in the built environment and land chapter and mosquitoes have been added to a new chapter on Human Health. Other additions to the report include sections on water conservation, greenhouse gas emissions, land degradation, and community involvement. The report concludes with a chapter discussing how we as a community can move towards sustainability.

As required by the Department of Local Government, the City of Ryde utilises the OECD's state - pressure -response model. For each issue there is a description of the current *state* of the environment, *pressures* which are causing these environmental problems, concluding with a discussion on Council's *response* to the issue over the last year. Each chapter concludes with a section on actions to for the future and a progress report from the previous years Management Plan.

Indicators for Measuring Change

In order to measure progress towards sustainability it is necessary to have indicators. This year staff and the Community Environmental Management Strategies Group reviewed indicators used in previous State of the Environment Reports. A research paper on indicators used in past State of the Environment Reports and used by other councils formed the basis of the discussion. As a result of this review process a list of core indicators was developed. It was recognised that some aspects of the environment are difficult to measure, and/or Council does not at this stage have the data. Council will be investigating ways to improve data collection in the coming year. It is recommended the indicators be reviewed again in May 2003. Indicators are highlighted in each chapter with a green text box.

Links with Management Plan

It is important that recommendations from the State of the Environment Report are incorporated into the City of Ryde Management Plan. For the past few years the Management Plan has included a specific section for actions relating to the State of the Environment Report and ecologically sustainable development. For the first time, the State of the Environment Report now provides feedback on progress of actions listed in the Management Plan. Summary tables from the Management Plan are located at the end of each chapter. Not all sections of the report have corresponding management plan summary tables, because the issue was not identified in the previous State of Environment Report as an action to be included in the Management Plan.

About the City of Ryde

Ryde City Council is responsible for the management of 40 km² of land in the North West of Sydney. The gently undulating country is bounded by the Parramatta River and the Lane Cove River. The City of Ryde was originally densely forested but now supports close to 100 000 residents. The area also supports a university, two TAFE's, CSIRO, and Macquarie Technology Park. Over one third of the population comes from culturally and linguistically diverse backgrounds.

Biodiversity



Biodiversity

Australia is one of the most biologically diverse countries in the world. It is estimated that Australia supports over one million species of plants and animals, of which only 15 percent are described. Unfortunately Australia also has the dubious distinction of having one of the highest extinction rates in the world. Not only are we losing individual species but we are also losing whole ecosystems.

Protecting biodiversity is not just about national parks and cute and cuddly endangered species. It is also about ensuring we can meet our most basic needs. Humans cannot survive without clean air, water and food, and all these things are derived from healthy ecosystems. Biodiversity is also important for social and cultural reasons. In our highly urbanised society biodiversity provides inspirational places for quieting the soul.

While protecting biodiversity is a national issue, the City can contribute by via proactive approaches such as use of planning controls to prevent clearing, and education to reduce the spread of weeds. Bush regeneration is also essential for restoring degraded bushland.

Bush Regeneration and Management

GOALS

- To implement strategic and comprehensive bushland programs that encourage passive natural areas recreational opportunities in the City of Ryde
- To protect biodiversity through weed management, bush regeneration and restoration, and fauna management

STATE

The City of Ryde's bushland consists of 164 hectares of remnants along riparian corridors which link with the Lane Cove National Park and foreshores of the Parramatta River. Six major plant communities are found in the City namely:

- Turpentine-Ironbark Forest
- Blue Gum High Forest
- Shale/Sandstone Transition Forest

- Sydney Sandstone Gully Forest
- Sydney Sandstone Ridgetop Woodland
- Estuarine complex (Casarina foreshores, mangrove forests and saltmarsh)

Three plant communities, four flora and three fauna species found in Ryde are listed under *Threatened Species Conservation Act* 1995. The City of Ryde has the responsibility to implement the *Threatened Species Act* both when assessing development applications and when managing its own lands.

PRESSURES

- Habitat fragmentation and clearing of native vegetation
- Altered fire regimes
- Domestic pets kill wildlife and dog droppings pollute waterways;
- Foxes and feral cats
- Noxious weeds displace native vegetation
- Increasing development results in greater areas of impervious surfaces resulting in greater runoff
- Increased population density puts pressure on bush reserves

RESPONSE

The City continues to place a high priority on its bush regeneration program spending \$ 310 000 this financial year. Bush regeneration contracts were completed in twenty one natural bushland parks. The City also supported bushcare volunteers through its bushcare program (See the Bushcare section on the next page).

Indicator - Paid Bush Regeneration Hours		
Reporting Period	No of Paid Bush Regeneration Hours	Amount Spent (\$)
1997/98	8 211	200 500
1998/99	7 681	200 500
1999/00	7 481	208 000
2000/01	8 261	225 000
2001/02	10 573	310 000
Movement Towards Sustainability	✓	✓

In order to better understand and manage the bushland, in the past year the City has:

- Mapped all major remnant forest communities and incorporated the information onto Council's GIS
- Established a university student research project on threatened plant communities
- Mapped three threatened plant species
- Incorporated ESD principles into planning instruments

Work continued on a major creek rehabilitation project in Darvall Park funded by Stormwater Trust Grants Stages 3 and 4. On completion of the rock work a comprehensive bush regeneration and rehabilitation program is planned. This work will involve a bush regeneration contractor; staff and a local bushcare volunteer group. The volunteer bushcare program will play a large role in the ongoing maintenance of the natural bushland after the project is completed. The volunteers will work in very close association with the bush regeneration contractor. The project will breathe life back into this weed infested and eroded creek line. The park will have signboards, a walking track and an attractive native bushland setting for public enjoyment. Six other significant natural areas grant works have also been undertaken this year by Urban Landscape Services. (Also see Creek Rehabilitation in the Water Chapter for information on other creek rehabilitation projects).

Bushcare Groups

This year the City was able to expand its Bushcare Program by employing a full time Bushcare Volunteer Coordinator in May 2001. There are now over seventy volunteers involved in Bushcare within several reserves. In the past year volunteers completed 7 600 hours of bush regeneration work which is an increase of 4 098 hours over the previous year. Activities by volunteers included: weed removal and control; track maintenance and construction; fauna and flora management; site assessment, planning and monitoring; seed collection and propagation; planting and revegetation programs; newsletter production and committee work. The Bushcare Volunteer Coordinator also developed occupational health and safety procedures, a pesticide policy and a bushcare logo to promote the program.

Local companies, TAFE and other interested organisations were encouraged to become involved in the program through donations and working days. Some companies such as ACNeilson, Novartis Pharmaceuticals and Ryde TAFE have conducted working days at several reserves to assist established Bushcare groups.



There are now over seventy volunteers involved in Bushcare within several of the City's reserves

Future Actions

- ▶ Produce a Bushcare Volunteers book which will include occupational health and safety procedures and pesticide policy
- ▶ Complete the bushcare trailer which be used for educational displays
- ▶ Construct minor drainage works at Kobada Park and Martin Reserve to eliminate weed seed source and develop volunteer groups
- ▶ Complete Darvall Park drainage and bushland rehabilitation works
- ▶ Research conservation strategies to enhance threatened species populations such as Blue Gum High Forest remnants in the western catchment, Turpentine-Ironbark Forest remnants and shale ridgetop Blue Gum Forest remnant in Marsfield
- ▶ Add threatened plant species to the City's database

Pest Management

GOAL

- To implement community based projects that eliminate primary and satellite infestations of target noxious and feral species of regional concern

STATE

Noxious weeds are spread by birds, dumping, wind and water, invading bushland reserves where they displace native vegetation, and change animal habitat and food sources. Residential surveys of noxious weeds in 1996 and 2001/2002 in West Denistone and West Ryde indicated that noxious weeds grew on 80–93% of surveyed properties. Noxious weeds are also widespread on Council owned lands. In order to maximise the benefit of bush regeneration programs, the City needs to manage noxious weeds on both Council and private land.

Since 2000 the City has participated in the Sydney North Regional Fox Control Program. The program involves six local Councils and National Parks and Wildlife Service. Yearly baiting is conducted in approximately 100 bushland reserves in Northern Sydney. The number of foxes in the City of Ryde is unknown. Rabbits are also a problem in the City.

Pressures

- Rapid spread of weeds by birds, water, wind and dumping
- Loss of small native vertebrate species from fox predation
- Increased rabbit infestation destroys native vegetation

RESPONSE

Noxious Weeds

This year Sydney North Noxious Weed Committee completed a new common noxious weed list for adoption by the eleven member Councils. The common list will promote a consistent approach to control of noxious weeds in the region.

A pilot program to control noxious weeds on private land around Brush Farm Park was commenced this year. The program supports bush regeneration activities in the park and is intended to prevent the spread of weeds from neighbouring properties. Staff visited over 400 households around Brush Farm, Lambert and Bell



Residents are offered a free noxious weed collection service

Park. As part of the program residents were offered replacement plants and a free noxious weed pickup service. The City collected over 41 tonnes of noxious weeds removed by residents.

The City continued to implement a three year Alligator Weed control project. Contractors were employed to conduct an eradication program in foreshore parks. The City aims to reestablish salt marsh and native grass in foreshore areas of eighteen parks to limit Alligator weed regrowth, especially above the high tide mark.

A Pampas Grass and Blue Grass control project was completed in the Delhi to Wicks Road area. Actively seeding plants were removed from the boundary to prevent spread to bush land situated downstream in the catchment. The project was jointly funded by the Roads and Traffic Authority (RTA), Planning NSW and the Department of Education.

Indicator - Households Inspected for Noxious Weeds

Reporting Period	No of Households Inspected
1996/97	159*
1997/98	70*
1998/99	54
1999/00	50
2000/01	43
2001/02	452
Movement Towards Sustainability	✓

Note: figures include individual inspections as well as figures from specific noxious weed programs.

* Incomplete data for part of the year

Feral Animals

Fox baiting was conducted over a three week period in August in the Field of Mars Wildlife Reserve. Three bait stations were monitored in August 2001. Three active baits were removed by foxes. Publicity for the program included informing eight veterinary clinics, and erecting twenty five "1080" warning signs in the reserve. Fox monitoring with sand plots was also undertaken in February, June, August and November.

Moss Vale Rural Lands Protection Board began the process of developing a management plan for the control of feral rabbit populations in the City of Ryde.

Future Actions

- ▶ Investigate replicating the Brush Farm Noxious Weed project in the City's other reserves
- ▶ Undertake the fox sand plot monitoring four times a year at Field of Mars and Brush Farm Park
- ▶ Remove rabbit habitat in Field of Mars

PRESSURES

- Properties which edge onto bushland are susceptible bushfires
- Current climatic and fuel conditions indicate an early and severe bushfire season

RESPONSE

Fifteen hazard reduction/ecological burns were conducted by NSW Fire Bridgade in the past year. Three burns were in high fire risk areas. Council maintained 41 firebreaks. The hazard reduction/ecological burn program was submitted to the District Bushfire Management Committee for endorsement. The District Bushfire Management Plan (Operations) was completed September 2001, and the Bush Fire Risk management Plan was adopted June 2002. Further work is still required on hazard reduction map.

Future Actions

- ▶ Review the hazard reduction map

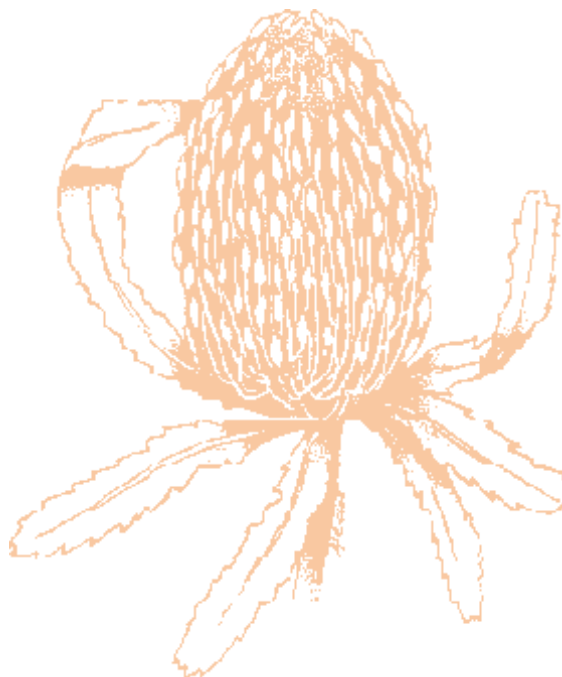
Fire

GOAL

- To minimise the impact of fire on both people and property, while maintaining natural fire regimes for native bushland

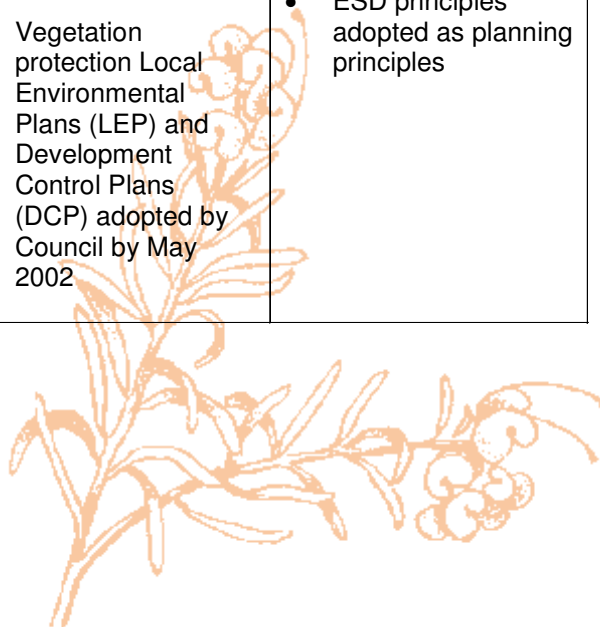
STATE

Australia's flora is adapted to fires, in fact many species depend on fire for regeneration. In the City of Ryde much bushland borders onto private property. The possibility of bushfires is therefore a significant concern especially for owners of properties which edge onto bushland. Controlled burns are used to keep the fuel load down so that if a fire is accidentally lit, it will be easier to control. The problem with prescribed burns is that they change the fire regime in terms of intensity, frequency and season, and can affect a species capacity to regenerate. Maintaining a balance between protecting property and life and maintaining biodiversity is difficult, especially as it is not well understood as to what is the best fire regime for maintaining biodiversity.

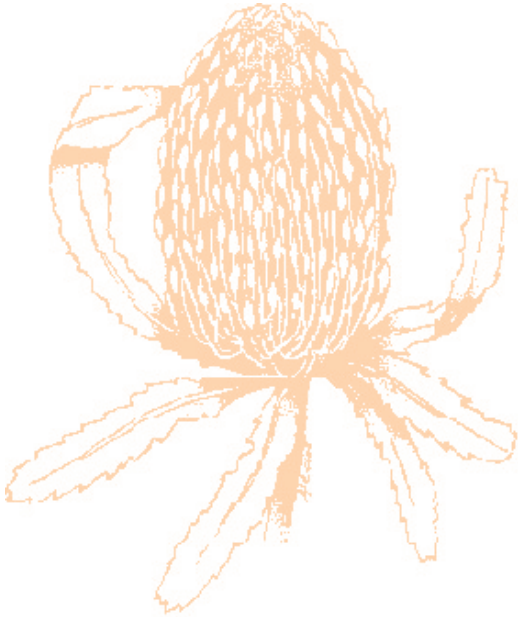


Management Plan 2001/02 Progress Summary - Biodiversity

Objective	Strategy	Measures/Targets	Progress
1. Employment of a Bush Regeneration Coordinator	1.1 Submit NHT Volunteer Coordinator Grant Application	<ul style="list-style-type: none"> • Officer appointed by July 2001 • Database of groups developed by October 2001 • Volunteer Group strategic management developed by May 2002 	<ul style="list-style-type: none"> • Officer appointed May 2001 • Database of 70 volunteers and 25 groups developed and ongoing • Position Description and Registration Form developed for Bushcare Volunteers • Adoption of and promotion of the Bushcare logo • OH&S Volunteer Procedure and Policy Document completed • Sponsored bushcare trailer under construction • Volunteer Logbook completed
2. Protection of Significant Vegetation	2.1 Identify significant vegetation 2.2 Introduce planning instruments to protect vegetation	<ul style="list-style-type: none"> • Mapping completed by March 2002 • Vegetation protection Local Environmental Plans (LEP) and Development Control Plans (DCP) adopted by Council by May 2002 	<ul style="list-style-type: none"> • Mapping completed • ESD principles adopted as planning principles



Waste



Waste

GOAL

- To minimise the amount of waste going to landfill

STATE

Waste is a by product of our industrialised, throwaway society. It is a graphic reminder of how we are rapidly depleting our resources. Not only are we now consuming increasing quantities of resources but we are consuming goods with greater amounts of packaging, with increasingly shorter lifespan and made of materials which cannot be reused or recycled.

The City of Ryde aims to encourage recycling through the provision of a comprehensive recycling service for residents. The recycling service provides for the recycling of glass, PET plastic, aluminium and steel cans, milk and juice cartons, clean paper and cardboard. Composting is encouraged via the provision of low cost compost bins and worm farms and composting demonstrations. Sump oil, car batteries and whitegoods can be recycled at North Ryde Transfer station free of charge and medical waste can be disposed through local chemists.

Porters Creek Depot recycles excavated materials, bitumen, concrete etc from road works. These materials are crushed and stored before being re-used in the reconstruction and rehabilitation of the City of Ryde roads, footpaths and drainage works.

Resource NSW replaced the Waste Boards after the gazettal of the *Waste Recovery and Resource Act* in 2001. Resource NSW is currently in the process of finalising their Waste Management Plan, which will assist the City of Ryde in the direction it will take in the future.

PRESSURES

- Increasingly consumption of resources due to affluence is creating more waste
- Pricing structure does not reveal the full cost of resources
- Diminishing landfill space and increasing costs of disposal
- Littering and illegal dumping

- Wastage of resources because goods are not correctly priced and increasing affluence

RESPONSE

Domestic Garbage

Approximately 35,100 residences received a weekly garbage service and a bi-annual clean up collection. In 2001/02 a total of 31,301 tonnes of solid waste was removed, which is an average of 892 kg per household.

Indicator - Total Waste Collected

Reporting Period	Tonnages	Per household (kg)	Per capita* (kg)
1994/95	31 759	945	-
1995/96	31 139	895	-
1996/97	29 547	832	318
1997/98	30 164	846	-
1998/99	32 145	914	-
1999/00	33 093	914	-
2000/01	31 585	910	330
2001/02	31 300	892	-
Movement Towards Sustainability		x	x

Note: figures are based on data recieved from the North Ryde Waste Management Centre and the Collex Waste Management Greenacre Transfer Station.

*Accurate records of population are only available for Census years 1996, 2001.

Domestic waste is disposed at the Eastern Creek Landfill site, however soon this site will reach its full capacity. Collex's Bio-Reactor Landfill at Woodlawn has been approved by the State Government, however the Clyde Rail Link needs to be established before the bio-reactor can be operated. The City of Ryde may then be required to tender for the disposal of waste from within our City.

Recycling Service

The City of Ryde aims to encourage recycling through the provision of a comprehensive recycling service for residents. The recycling service provides for the recycling of glass, PET plastic, aluminium and steel cans, milk and juice cartons, clean paper and cardboard. Approximately 80-90 percent of residents continued to use the fortnightly recycling service. A total of 8,066 tonnes of recyclables were collected from 36,000 bins during 2001/02.

to landfill has been made mandatory or the company processing greenwaste material is able take larger quantities. On the other hand if Council's general waste goes to the Woodlawn Landfill, the bio-reactor will require greenwaste for the gasification process to operate at its best. The cost of disposing of greenwaste in this manner is cheaper than implementing an additional collection service and the greenwaste is still being utilised.

Toxic Chemical Collections

The Waste Management Centre at North Ryde, continued to accept up to 20 litres of waste oil, paint, solvents and household cleaners free of charge from domestic households per visit. Figures on quantities received are not available. Sydney Water in conjunction with Waste Services held seven Household Chemical Collections throughout the Sydney Metropolitan Area. This collection service encourages residents to dispose of old household chemicals, which are no longer required, rather than put them in the garbage or down the drain. This year a collection was held at the North Ryde Waste Management Centre with record attendance for this site. The City of Ryde promoted and attended the event.

Indicator - Total Recyclables Collected

Reporting Period	Total Waste Tonnages	Recycling Tonnages	Percentage of recycled	Recycling per capita* (kg)
1994/95	31 759	3 904	10.91	-
1995/96	31 139	5 395	14.77	-
1996/97	29 547	7 460	20.16	80
1997/98	30 164	7 948	20.85	-
1998/99	32 145	7 917	19.77	-
1999/00	33 093	8 106	19.67	-
2000/01	31 585	8 066	20.34	-
2001/02	31 300	8 065	20.49	84
Movement Towards Sustainability		✓	✓	✓

Note: figures are based on data recieved from Waste Services, Collex Greenacre Transfer Station, and Waste Services Recycling Facility, Chullora

*Accurate records of population are only available for Census years 1996, 2001.

Recyclable products go to Chullora Materials Recovery Facility for sorting. Due to the fall in market prices for these products, a gate price was established to cover processing. The City of Ryde remains exempt from this gate price due to our contract with Collex Waste Management, as long as the contamination levels are not excessive.

Household Clean Up Service

This year the City of Ryde began recycling all metal goods and greenwaste collected in household cleanups. All metal goods including large household appliances are now recycled by Metalcorp. Greenwaste is taken to Waste Service Transfer Station at Wicks Rd, where it is shredded and stock piled before being transported to Australian Native Landscaping at Eastern Creek for composting. Council also increased the number of clean up days from twice a year to every twenty weeks.

Garden Waste

The implementation of a separate greenwaste collection is still on hold until either the ban of greenwaste going



Household chemical collections prevent chemicals from going down the drain and harming our rivers

Household Medical Waste

Three years ago the City of Ryde implemented the Medical Waste Collection involving twelve local pharmacies. The City of Ryde pays for a locked mobile garbage bin at each location, for syringes and dialysis tubing. This reduces a large quantity of dangerous items

entering landfill. Approximately 494kgs was collected during the year.

The City of Ryde also promotes the Return Unwanted Medicines Project. This project enables residents to take their unwanted pharmaceuticals to any pharmacy across Australia for free collection. These medicines are then disposed of in a strictly regulated, safe and environmentally friendly manner.

Commercial Waste

During the year, Collex resolved to terminate the services of Bintrak who provided an electronic tagging system for commercial bins. As a result a steering committee was formed to find a new company who could provide a suitable computer tagging and reading system. Fleetcom was chosen and the commercial bins were retagged with Tiris transponders, which are reading accurately at this stage.

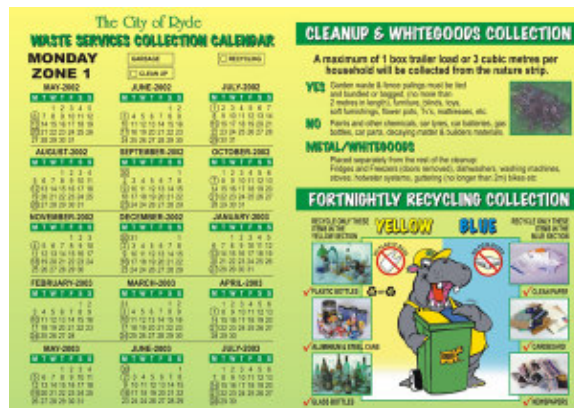
The City of Ryde also implemented a change in the billing system for the commercial services, introducing a Waste Collection Agreement, which is completed by the payers of the bill rather than the Ratepayer. Billing will be quarterly in advance to prevent unpaid collection services. There was a drop in the number of commercial garbage services due to the new agreement with around 1570 garbage bins allocated within the City. An average of 80 percent of these bins are serviced each week with a total of 1,477.14 tonnes collected during the year. Due to the low use of the recycling service, the City of Ryde decided to only charge an availability fee for the recycling service per quarter. This was to encourage the users to utilise the service while the City of Ryde recovered some costs.

Waste Education

The City of Ryde conducted a number of displays on recycling during the year, including the Granny Smith Festival, National Recycling Week & Seniors Week Expo. Recycling and waste reduction activities were undertaken with schools, scout and community groups, including a visit to the Chullora Materials Recovery Facility. Council also promoted and attended the Sydney Water and Waste Service Household Chemical Collection held at the North Ryde Waste Management Centre in April, 2002. The City of Ryde continues to sell compost bins and wormfarms at cost which helps residents to practice ecological sustainability.

With the change in cleanup collections to a twenty week cycle, the City of Ryde introduced and distributed a Waste Collection Calendar to all residents. The calendar not only identified the garbage, recycling and cleanup dates for the their area, but also highlighted the correct

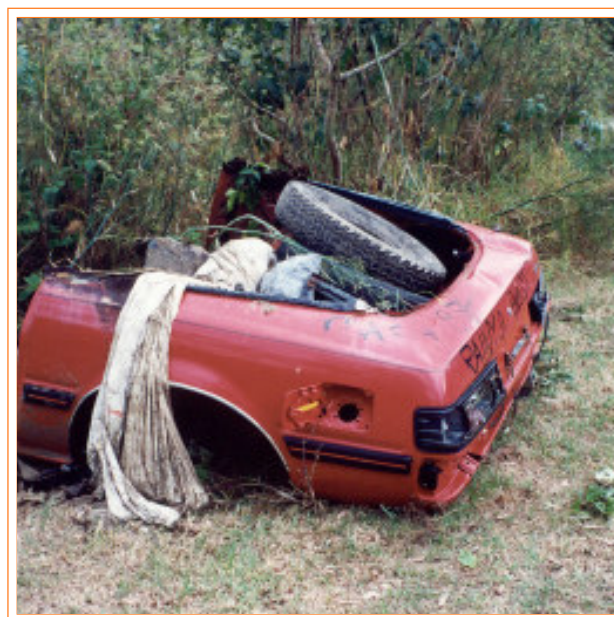
items for recycling in clear pictures form, the correct items and method for cleanup presentation, as well as information on general waste disposal.



A new Waste Collection Calendar was introduced

Litter and Dumping

The City of Ryde rangers actively enforce littering and illegal dumping. In the past year four clean up notices, 20 litter infringements and four notices relating to large scale dumping were issued.



Rangers actively enforce illegal dumping

Clean Up Australia Day - 2 March, 2002

Clean Up Australia Day was promoted by the City of Ryde from 22 sites. Cleanup sites were situated around the foreshore and bushland/park areas. A large number of volunteers turned out on the day. Approximately 37 tonnes was collected in "Clean Up Australia" bags and skips. Eleven schools participated in the Schools Cleanup Day.



Volunteers lend a hand during Clean Up Australia Day

Porters Creek Depot

Planning NSW rejected an application to exhibit a draft LEP on the development of an Integrated Waste Management and Recycling Park. Council resolved to place a moratorium on further intensification of activities at Porters Creek, pending the commencement of extensive community consultation on the Council's proposal.

Following the community consultation and the approval of the Clyde Transfer Facility, Council has resolved not to continue with the development of an integrated waste management and recycling facility at Porters Creek incorporating a transfer station.

Investigations are progressing with the improvement of the green waste processing and construction and demolition waste processing at Porters Creek along with other alternate and complimentary uses.

(See the Water Chapter for water quality results of leachate from Porters Creek.)

Inhouse Recycling and Waste Reduction Programs

The City of Ryde in-house recycling program continued to provide staff with desktop paper recycling boxes and co-mingled wheelie bins for paper, PET, aluminium and glass. Food scraps in the administration building were composted in a worm farm. The cardboard recycling

bale system continued with an average of eight bales being collected each month. Staff washrooms continue to be supplied with cloth hand towels reducing a considerable amount of paper towel waste. As in previous years close to 100 percent of excavated materials, bitumen, concrete extracted from road works were recycled. These materials are re-used in the reconstruction and rehabilitation of roads, footpaths and drainage works

Development and Waste Management

As mentioned in the Built Environment and Land Chapter this was the first full year that the Waste Minimisation and Management DCP No 27 has been implemented. The DCP became effective March 2001 and since then the City of Ryde has required waste management plans for major developments and have been distributing a guide to waste planning with major development applications. The DCP requires amongst other things, communal composting facilities for multi dwelling developments.

Future Actions

- ▶ Negotiate disposal of waste to landfill with Collex and Waste Services
- ▶ Investigate the feasibility of a separate greenwaste collection service



Management Plan 2001/02 Progress Summary - Waste

Objective	Strategy	Measures/Targets	Progress
1. Ensure disposal of waste to landfill is minimised.	1.1 Submit Draft Waste Minimisation and Management Plan for endorsement.	<ul style="list-style-type: none"> • Implementation of Plan • Monitoring of Waste data 	<ul style="list-style-type: none"> • The Waste Minimisation and Management DCP was endorsed by Council March 2001
2. Complete installation of the Bintrak system in Waste Management.	2.1 Implement computer reading for invoicing	<ul style="list-style-type: none"> • System operating by 1 July 2001. 	<ul style="list-style-type: none"> • The Bintrack system was implemented but proved to be unsuccessful. Council subsequently retendered and chose the services of Fleetcom.
3. Establishment of a Waste Management and Recycling Park at Porters Creek.	3.1 Negotiation of re-zoning issues.	<ul style="list-style-type: none"> • Resolution of outstanding issues. 	<ul style="list-style-type: none"> • Community consultation program conducted. Resolution not to incorporate a waste transfer facility as part of the development.



Water

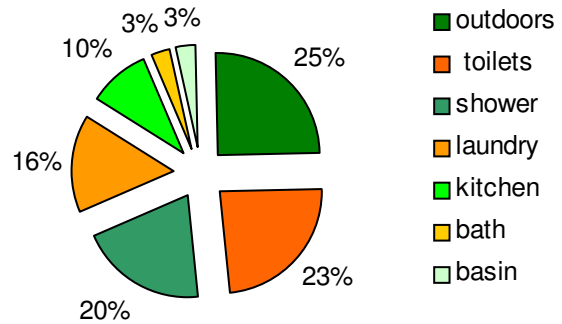


Water

All of life is dependent on clean water. Only three percent of the world's water is fresh, and 97 percent of this is tied up in icecaps or glaciers, or is too deep to retrieve. Despite water being a scarce resource we are already using 54 percent of available freshwater (Linden 2000). Increasingly we are also polluting both fresh and salt water. Not only is the polluted water no longer available for drinking but it is also no longer available for agriculture, recreation and for maintaining aquatic biodiversity. Freshwater ecosystems are more endangered than any other ecosystem. Marine areas are also suffering from polluted runoff, litter and over fishing. As global citizens we must reconsider how we manage our water.

In Ryde the average household water use for single dwelling houses is 272 kilolitres per year, which is slightly lower than the Sydney average of 292 kilolitres a year. The majority of household water use is for gardens, with the next highest use being the toilet, shower and laundry.

Household Water Use in Ryde LGA



Source: Sydney Water 2002

Water Conservation

GOAL

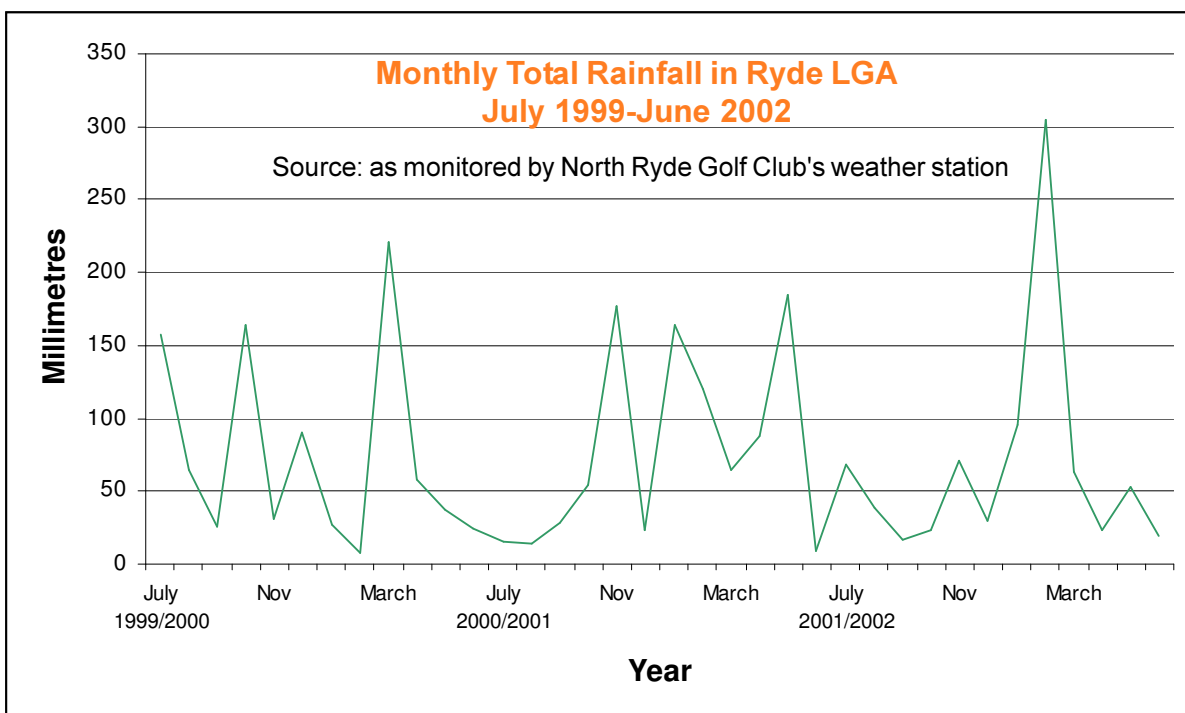
- To minimise consumption of water in the City of Ryde

STATE

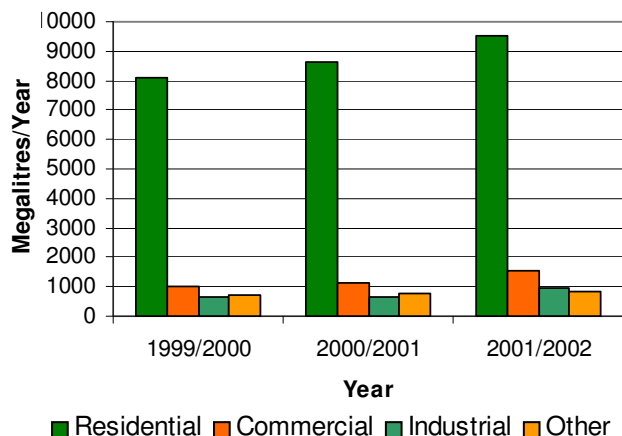
Australia is the driest inhabited continent and has the most varied rainfall in the world (EPA 1997). As a result Australia has redirected rivers and created dams to provide enough water for irrigation and its cities. Seventy-five percent of water is used for agriculture (EPA 1997). While urban areas use relatively small amounts of water compared to agriculture, the water quality requirements are much higher. Households consume 71 percent of Sydney's water supply, with industry using relatively little.

PRESSURES

- Gardens not adapted to the Australian climate thus requiring lots of water
- Pricing structure doesn't encourage water conservation
- Little understanding of the need for water conservation
- A water supply system which results in high quality water being used for watering gardens and flushing toilets



Indicator - Total Annual Water Consumption in the City of Ryde



Source: Sydney Water 2002

Indicator - Total Water Consumption for City of Ryde Organisation

Reporting Period	Water Consumption (kilolitres)
2000/01	134 880
2001/02	152 656

Source: Sydney Water 2002

RESPONSE

As discussed in the Land and Air chapters, this year Council prepared draft Energy Smart, Water Wise DCP. Water conservation requirements in the draft DCP include: AAA rated taps, showerheads, and dual flush toilets. Residential flat buildings, commercial and industrial sites also will be required to conduct a water efficient landscape assessment. Sites greater than 1000 m2 will be required to conduct a comprehensive water cycle assessment demonstrating how demand for water and discharge of waste water will be minimised. The draft DCP was recently exhibited and is now with Council for consideration.

Meadowbank Employment Area DCP, adopted November 2001, and draft Top Ryde DCP, also include requirements for water conservation, such as water efficient showerheads and dual flush toilets. The DCP's also encourage water reuse and use of rainwater tanks.

The installation of rainwater tanks for watering gardens is now actively encouraged in the new Stormwater Management DCP, adopted in August 2001. Tanks smaller than 3000 litres are considered to be exempt

development.

The City of Ryde Organisation has also been actively reducing its own water consumption by converting toilets into dual flush systems and removing self flushing urinals, replacing them with motion sensors urinals. Over the past few years the City of Ryde also has had a program to install back flow devices on sports field irrigation systems. The program is now close to completion.

Future Actions

- ▶ Include water conservation in the environmental education program
- ▶ Investigate ways Council can incorporate Water Sensitive Urban Design into its policies and programs. (Also see Water Quality and Stormwater Management)

Water Quality and Stormwater Management

GOALS

- To prevent pollution from entering stormwater and improve water quality of our waterways
- To monitor changes in aquatic health
- To maintain stormwater infrastructure
- To increase the community awareness of stormwater pollution
- To implement the Stormwater Management Plans

STATE

In order to improve the management of waterways, the NSW government introduced the Total Catchment Management framework in 1989. Total Catchment Management is a philosophy to promote co-ordinated resource management on a catchment rather than on an administrative basis. The City of Ryde straddles the Lane Cove River, Middle Parramatta River, and Lower Parramatta River catchments. Seventy percent of the City of Ryde falls into the Lane Cove River. The City of Ryde is a member of the three catchment committees and the Lane Cove River Estuary Management committee. Recently the State government amalgamated the catchment management committees into a single regional committee.

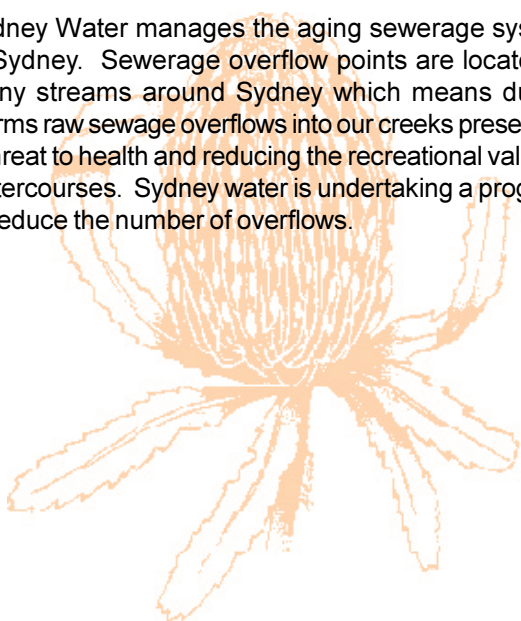
Catchments in the City of Ryde have been affected by urbanisation which has changed the volume and rate of

run-off that enters waterways. Buildings, roads, footpaths and paved hard surfaces have significantly reduced the natural absorption rate of soil, resulting in erosion of creeklines and increased stress on stormwater infrastructure.

Urbanisation has also increased water pollution. Pollutants come from households, industry, businesses, roads, pets, gardens and litter. Fertilisers, phosphate detergents, and pet faeces have increased nutrient levels, which results in weeds and algal blooms. Sediment from building sites and degraded bushland increases turbidity smothering aquatic fauna and flora and reducing photosynthesis. Oil and grease from vehicles, petrol stations, car parks and industrial sites contains hydrocarbons which are lethal for aquatic organisms. Pesticides, insecticides and fungicides from golf courses and domestic gardens may accumulate in food chain and are lethal to both humans and aquatic life. Gross pollutants such as street litter are visually unattractive and may also kill aquatic life.

To prevent pollutants entering waterways the City of Ryde has installed eighteen gross pollutant devices (GPD) since 1996. In 2001-2002 a total of 31.1 tonnes of material was removed from Council's gross pollutant traps. In addition, 679 tonnes of debris was removed through the City of Ryde's street sweeping program. The City of Ryde is largely responsible for managing the local drainage system. The stormwater drainage system is composed of pipe networks, culverts and natural watercourses which drain into creeks and ultimately Lane Cove and Parramatta River. The piped system is designed to quickly carry water away from urban areas, but increasingly is unable to cope with the volume of water due to the significant increase in hard surfaces. Pipes also crack due to penetration by roots, damage caused by redevelopment and aging of the infrastructure.

Sydney Water manages the aging sewerage system in Sydney. Sewerage overflow points are located in many streams around Sydney which means during storms raw sewage overflows into our creeks presenting a threat to health and reducing the recreational value of watercourses. Sydney water is undertaking a program to reduce the number of overflows.



Indicator - Total Number of Pollution Control Devices Installed

Reporting Period	No of Pollution Control Devices Installed
1996/97	1
1997/98	-
1998/99	-
1999/00	8
2000/01	5
2001/02	4
Total	18

Indicator - Total Number of Pollution Control Devices In Subcatchments

Subcatchment	No of Pollution Control Devices
Shrimptons	12
Buffalo	1
Denistone	1
Eastwood	4

Note: There are fourteen catchments within the City of Ryde

PRESSURES

- The need to obtain baseline aquatic health data, which are necessary to monitor changes in aquatic health
- Increased hard surfaces due to development and increased use of paving results in greater volumes of runoff
- Limited resources to maintain decaying stormwater infrastructure
- Lack of community understanding about water pollution

RESPONSE

Water Quality Monitoring

Biological Water Quality Monitoring

Traditional water quality monitoring involves measuring physical/chemical data such as pH, dissolved oxygen,

conductivity and turbidity. The difficulty with this technique is it really only measures water quality at a particular point in time. More recently a new method for measuring water quality has been developed. Biological water quality monitoring uses macro-invertebrate assemblages and key species as indicators of long-term change of water quality. As species can be highly responsive to changes in water quality and provide a good assessment of water quality change over time.

This year the City of Ryde commissioned Biotrack to design and conduct a biological water quality monitoring program for Shrimptons and Archers Creek. The purpose of the monitoring was to provide baseline data so that future monitoring can detect positive or negative changes in the health of the sites. Baseline data was collected in accordance with the New South Wales Australian River Assessment System (AUSRIVAS). The reported AUSRIVAS rating for Shrimptons Creek was moderately to severely impaired/degraded and for Archers Creek, mildly to moderately impaired/degraded. The riffle habitats² in both creeks were characterised as moderately impaired or severely degraded which is characteristic of urban creeks in Sydney. Only the edge habitat in Maze Park was characterised as mildly impaired.

The City of Ryde also participated in a biological monitoring program for the Lane Cove River Catchment. This program involves twice yearly surveying of creeks in the Lane Cove River Catchment, including Porters and Buffalo Creeks located in the City of Ryde. Under the guidance of consultant Robyn Tuft, staff collected the specimens, which were later identified by Dr Tuft. The study found that both Porters Creek and Buffalo Creek had an AUSRIVAS rating B, or below reference. These rating suggest that both Porters and Buffalo Creeks are healthier than Shrimptons and Archers Creek. However the signal index³, indicated that both Porters and Buffalo Creeks were severely impaired. As part of the program Council staff received training in biological monitoring techniques so that in the future the City of Ryde may conduct its own sampling program.



Monitoring water quality at Buffalo Creek



Water Quality Monitoring Sites

Water Quality Monitoring 2001/2002 - Map Index

Streamwatch Program	1, 2, 3
Lane Cove River Program	4, 5
Porters Creek Leachate Program	5
BioTrack Program	6, 7, 8

Streamwatch

As in previous years City of Ryde staff have participated in the Lane Cove River Streamwatch Catchment Day in March 2002. In the City of Ryde samples are taken from Terrys, Shrimptons and Mars Creeks. For the past three years Council has expanded the normal testing parameters by including at least 12 metals, since little information exists on the extent of metal contamination in watercourses in the City of Ryde. The results, when added to those from previous years, can help piece together a picture of the water quality in the catchment across time to show if it is improving or degrading. Reports from the catchment days are available in the Local Studies section of the Ryde Library.

Porters Creek Water Quality Monitoring

In the early 1990s nitrogen compounds from Porters Creek landfill site was found to be polluting Porters Creek and Lane Cover River. As a result in 1996 the City of

² Riffles are shallow, rocky or gravelly sections of rivers with fast flows and broken water.

³ Signal index is similar to the AusRIVAS index and uses indicator animals and abundance to assess water quality (Chessman 1995).

Ryde installed a system to collect the leachate which was infiltrating the culverts. In dry weather the leachate is used for spray irrigation on site and during wet weather pumped to the sewer. Since November 1993 the City of Ryde has been monitoring the water quality of Porters Creek up stream and down stream of the landfill site. Water quality sampling for 2001-2002 found the differences between the two sites was less than 1.5 mg/l for nitrate/nitrite, less than 1.5 mg/l for Total Kjeldahl Nitrogen (13 out of 16 tests) and less than 1 mg/l (15 out of 16 tests) for ammonia. Since the installation of the leachate system the levels of nitrogen compounds in the water have declined.

Maintaining Stormwater Infrastructure

A severely damaged Tonkin stormwater pipe that passed underneath Buffalo Road was reconstructed this year. Twin box culverts with a greater carrying capacity replaced the Tonkin pipe. Following the reconstruction work, extensive landscaping of the site was undertaken. Urgent drainage repairs were completed in Blenheim Road, Alexandria Avenue and Adam Street. Stage one of a four-stage project was completed to replace a Tonkin drain and to upgrade the stormwater system between Anzac Park and Herbert Street. The existing stormwater system between Addington Avenue and Shepherd Street was also reconstructed.

Controlling Stormwater Pollution

Four Humeceptor™ stormwater pollution control devices were installed in the three Eastwood CBD carparks. The EPA through its Stormwater Trust Stage 3 grants and Ryde City Council funded this project. The devices trap sediment, oil and grease and the contents will be regularly monitored and removed. As part of this project a community education campaign was conducted at Eastwood shopping centre (see below). Council also secured a grant for \$90 000 from the Roads and Traffic Authority for the installation of a stormwater quality improvement device (SQID) at Marsden Rd, Eastwood adjacent to Brush Farm Park.

Creek Rehabilitation

This year the City of Ryde began a major creek rehabilitation project on Archers Creek at Maze Park, West Ryde. The project involves installation of gross pollution traps, modification of the creek profile, removal of noxious weeds and revegetating the banks with native species. Design for the creek rehabilitation and the community consultation phase was completed, and weed removal has begun. A gross pollutant trap was also installed at Shrimptons Creek.

Community consultation for remediation of works for Miriam Creek was also conducted. (Also see the section on Bush Regeneration in the Biodiversity Chapter for information on the Darval Creek rehabilitation project).



A major creek rehabilitation project on Archers Creek at Maze Park, West Ryde has commenced

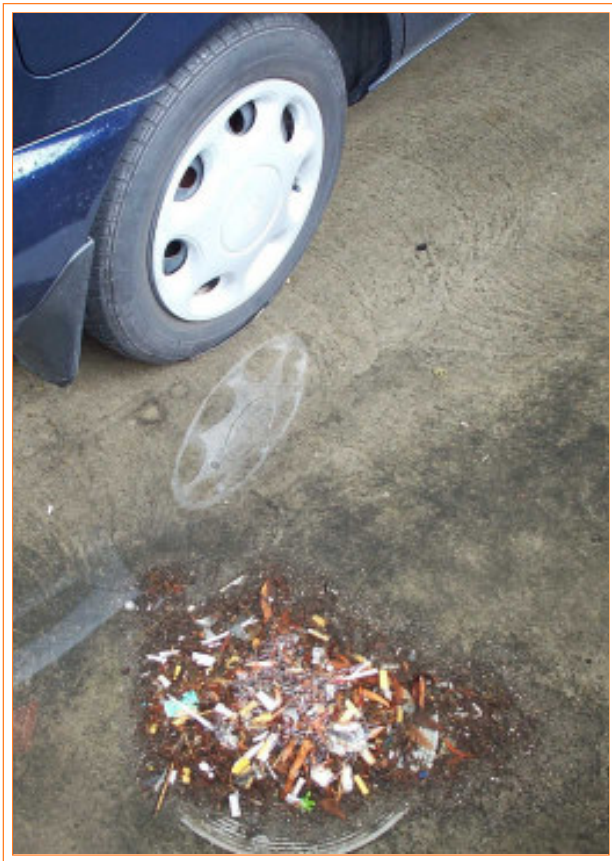
Industry Audit Program

Preparation for the Industry audit program began this year. The audit program will be conducted next financial year.

Community Stormwater Pollution Education

To complement the installation of four humeceptors in the carpark at Eastwood shopping centre, the City of Ryde also conducted a stormwater pollution education program. The project involved installing educational signs in two public car parks, and stenciling drains in the area with educational messages. A one-day promotion in the Eastwood shopping centre provided an opportunity for face to face education. Displays were also installed in Eastwood library. The project was publicised via a series of educational advertisements, editorials and media releases in local papers from January to March 2002.

Stormwater pollution education was also promoted during the Granny Smith Festival, October 2001. The Lower Parramatta River Catchment Committee ran advertisements in cinemas about reducing stormwater pollution.



The City of Ryde has conducted stormwater pollution education campaigns to prevent items such as cigarette butts from polluting our waterways

- ▶ Continue installation of gross pollutant traps
- ▶ Investigate alternative funding sources for GPT installation
- ▶ Identify and prioritise sites for GPT installation.
- ▶ Install and commission the stormwater quality improvement device at Marsden Rd, Eastwood using grant funding from RTA early in 2002/2003.
- ▶ Award a contract and commence works for the upgrading of stormwater drainage and installation of Gross Pollutant Traps in the Meadowbank Employment Area.
- ▶ Install a GPT at Maze Park, West Ryde early in 2002/2003 and restore riparian vegetation.
- ▶ Restore Miriam Creek at West Ryde
- ▶ Conduct an industry audit program in Gladesville. Education material and if necessary use of legislation will be used to reduce water pollution. (Also see Noise and Air Chapters)
- ▶ Conduct community and in-house education programs on stormwater pollution prevention.

Future Actions

- ▶ Develop a water quality monitoring strategy for the City of Ryde
- ▶ Investigate ways Council can incorporate water sensitive urban design into its policies and programs. (Also see Water Conservation)
- ▶ Continue to implement the stormwater management plans
- ▶ Seek resources for replacing collapsing infrastructure.

Water Sensitive Urban Design – What is it?

Water Sensitive Urban Design is a new holistic approach to water management in the urban context. This approach aims to reduce the impact of urbanisation on the water cycle by integrating planning, landscaping, design and engineering methods. Techniques include use of rainwater tanks and water recycling to reduce water volumes, and use of soft landscaping and grass swales to increase water absorption. Other design approaches include use of wetlands, sediment traps and water pollution control ponds to maintain water quality and enhancing and protecting natural water systems.

Management Plan 2001/02 Progress Summary - Water

Objective	Strategy	Measures/Targets	Progress
1. Implementation of measures proposed in Stormwater Management Plans.	1.1 Completion of programmed funded works and activities identified in the Stormwater Management Plans.	<ul style="list-style-type: none"> • Timelines specified in Stormwater Management Plans met. • Annual applications made for appropriate grants. 	<ul style="list-style-type: none"> • Most work continuing. • Grant applications made to EPA.
2. Continue installation of gross pollutant traps to improve water quality.	2.1 Determine and prioritise locations for gross pollutant traps and other measures to improve water quality. 2.2 Undertake funded work.	<ul style="list-style-type: none"> • Completion of funded work program. 	<ul style="list-style-type: none"> • Four Gross pollutant traps installed in Eastwood in 2001/2002. • Ongoing investigation for GPT installation sites.
3. Ensure resources are allocated to replace collapsing stormwater infrastructure	3.1 Regularly advise Council of the extent and cost of resolving the problem. 3.2 Investigate all sources of potential funding.	<ul style="list-style-type: none"> • Collapsing stormwater infrastructure identified and reported to Council. • Completion of funded work program. 	<ul style="list-style-type: none"> • Buffalo Rd stormwater pipe replaced. • Blenheim Rd, Alexandria Ave and Adam St urgent work completed. • Stage 1 of Herbert St upgrade completed. • Addington Ave system reconstruction completed.

Air



Air

Greenhouse Gas Emissions

GOAL

- To reduce greenhouse gas emissions in the City of Ryde

STATE

The earth's atmosphere now contains thirty percent more carbon dioxide than it did before the industrial revolution (EPA 1997). Burning of fossil fuels such as coal, gas and oil have been the major reason for this increase, although deforestation and modern agricultural methods have also contributed to the problem. The world's scientists are now certain that this build up of gases will affect the earth's climate. Rising sea levels, higher temperatures and more extreme climatic events such as floods and droughts are expected to be the consequence of interfering with the earth's climate. Already we have experienced the twelve hottest years on record since 1980.

PRESSURES

- An increasing number of people driving cars
- Increased affluence is resulting in exponential growth in consumption of consumer goods, which use energy in the manufacture or use of the product
- Most of the building stock is inefficient and not designed to conserve energy.

RESPONSE

Energy Efficient Buildings

Buildings are responsible for 50 % of energy consumed in Australia. As a result this year the City of Ryde completed draft Development Control Plan Energy Smart/Water Wise DCP. The draft plan provides energy efficient controls for all types of buildings including, houses, villas, residential flats, shops, industrial and commercial buildings. Houses will be required to have a 3.5 star NatHERs rating and larger buildings will be required to submit an energy efficient performance report. Hot water systems are required to have a minimum 3.5 Greenhouse rating, and insulation standards are specified in the DCP.

The draft DCP also requires commercial and industrial buildings to install showers, and bicycle racks to

encourage cycling and walking. These requirements will complement the Macquarie Park Corridor project, which will be looking to encourage businesses to develop workplace travel plans. Draft Energy Smart/Water Wise DCP was recently been exhibited and is now with Council for consideration. Also see the Transport section in this chapter.

Future Actions

- ▶ Join the Cities for Climate Protection Program and develop and implement a Greenhouse Gas Reduction Program. (Note linkages with Air quality plan).

Air Quality

GOAL

- To improve air quality in the City of Ryde

STATE

Population growth, urbanisation, and the resulting increased industrial activity and use of cars has created a significant air pollution problem in Sydney. Motor vehicles are the major source of most pollutants, contributing forty-five percent of emissions in the Sydney region (EPA 1997). Industry, bushfires, illegal backyard burning and solid fuel heaters also contribute to air pollution. In the past financial year bushfires were a major contribution to air pollution as can be seen in the regional pollution index.

Indicator - Total Number of High Pollution Days			
Reporting Period	Central Sydney	North West Sydney	South West Sydney
1999/00	0	7	5
2000/01	13	13	13
2001/02	22	37	34
Change (2001)	+9	+24	+11

Source: EPA

PRESSURES

- Increasing use of cars
- Use of solid fuel heaters
- Bushfires and illegal backyard burning

RESPONSE

The City of Ryde responds to specific air pollution complaints on a case by case basis. The most frequent complaints are from odours from businesses and sewer complaints. Other air pollution complaints include use of solid fuel heaters, dust, and backyard burning. A handful of complaints were about industry emissions such as spray painting. The City of Ryde received a total of 85 complaints this year and the EPA received four air pollution complaints.

Air pollution from solid fuel heaters is expected to decline as a result of a new EPA requirement that all new solid fuel heaters must meet stringent Australia Standards from July 2001.

As air quality is largely a regional issue it needs to be addressed on a regional basis. The City of Ryde needs to develop its own air quality management plan and lobby surrounding Councils to develop plans. (See the Transport section in this chapter regarding Councils response to managing increased use of cars.)

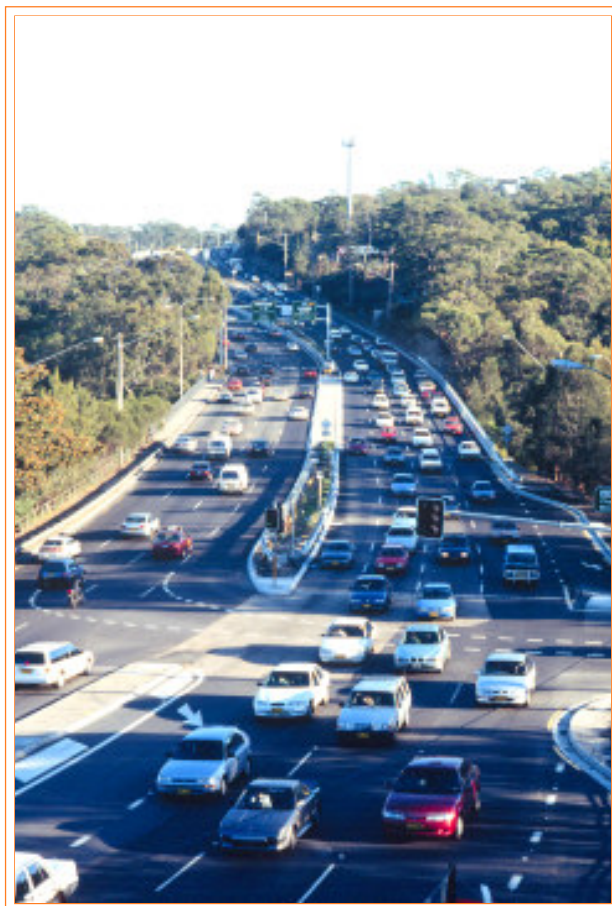
Future Actions

- ▶ Develop an air quality management plan in conjunction with the Cities for Climate Protection Program
- ▶ Encourage neighbouring Councils to develop air quality management plans
- ▶ Conduct an industry audit program in Gladesville. While the focus will be on water pollution, air pollution will also be identified. Education material and if necessary use of legislation will be used to reduce air pollution

Transport

GOALS

- To encourage reduced reliance on use of the car
- To promote alternative modes of transport to minimise air pollution and reduce use of fossil fuels



Traffic chokes our city with air pollution

STATE

Like most of Sydney, the most dominant form of transport in the City of Ryde is the motor vehicle. This is partly due to a steady increase in traffic flows through Ryde due to the growth of Western Sydney. These increased traffic flows have led to heavy traffic congestion on the State road network, which has in turn led to increased pressure on the local road network as motorists seek alternative routes. Greater private vehicle ownership has also been responsible for increased the number of cars on the road. The motor vehicle is the main source of air pollution in Sydney and the single biggest cause of household greenhouse gas emissions, contributing about 6000 tonnes per car, per year.

All forms of public transport are however, available in the City of Ryde. Buses service most suburbs and the Northern railway line services parts of Eastwood, Denistone, West Ryde and Meadowbank. Sydney Ferries service wharves at Meadowbank and Putney. To improve the amenity for bus users, the Council currently provides 217 bush shelters throughout the City.

**Indicator - Rail Journeys
in the City of Ryde**

Station	1998-99	1999-00	2000-01	2001-2002	Movement Towards Sustainability
Eastwood	1 675 630	1 750 591	1 771 807	1 747 347	✘
West Ryde	1 220 941	1 250 220	1 218 000	1 127 147	✘
Meadowbank	730 646	695 606	704 010	683 305	✘
Total	3 627 217	3 696 417	3 693 817	3 557 799	✘

RESPONSE

Public Transport

Buses

Over past few years the City of Ryde has been working with the RTA to implement the *Better Buses* program. The City has created bus priority lane in Eastwood and installed

Cycling and walking in the City is encouraged by the provision of 21.2 km of bicycle paths and 417 km of footpaths. A complete cycle link exists along the foreshores of the Parramatta River as part of the Parramatta-City cycleway. A major cycleway from Lane Cove National Park will eventually connect with the Parramatta River cycleway.

It is important that residents consider the roads to be safe if they are to feel comfortable cycling and walking. In 2001 the number of fatalities on NSW roads reached their lowest level since 1947. However, accident and casualty trends for Ryde show that since 1996 the figures for Ryde have stabilised.

bus shelters on Herring Street, Anzac Avenue, Balaclava Road and Parer Street. The RTA is currently proposing to extend the existing AM Peak T3 inbound lane to the City along Victoria Road, from its current commencement point at the intersection with Cressy Road, to the intersection with Bowden Street at Ryde.

Parramatta - Chatswood Rail Link

The City of Ryde continued to actively support the construction of the Parramatta Chatswood rail link which will provide three stations in the Macquarie Park area. Construction work for the Epping to Chatswood section of the Parramatta –Chatswood Rail Link Project will start in late 2002 and is expected to be completed in 2008. The Parramatta –Chatswood Rail Link will greatly increase the number of commuters using public transport.

Macquarie Park Transport Plan

The Macquarie Park Transport plan, co-ordinated by the City of Ryde and Planning NSW, was completed in April 2002. The report was commissioned in response to the proposed Parramatta –Chatswood rail link. Three key NSW Government strategic planning documents, *Shaping Our Cities*, *Action for Transport 2010*, and *Action for Air* were considered in the development of the plan. The transport plan proposes a range of transport policy, infrastructure and service initiatives designed to increase the use of public transport, cycling and walking. (Also see the Built Environment and Land Chapter).

**Indicator - Total Motor Accidents
in the City of Ryde**

Reporting Period	No of Accidents
1996	952
1997	919
1998	895
1999	879
2000	884
2001	879

Source: RTA Road Traffic Accident Data 2001

PRESSURES

- Increasing numbers of cars on the road
- Majority of Commonwealth and state funding into transport funds is for roads with very little funding allocated to public transport

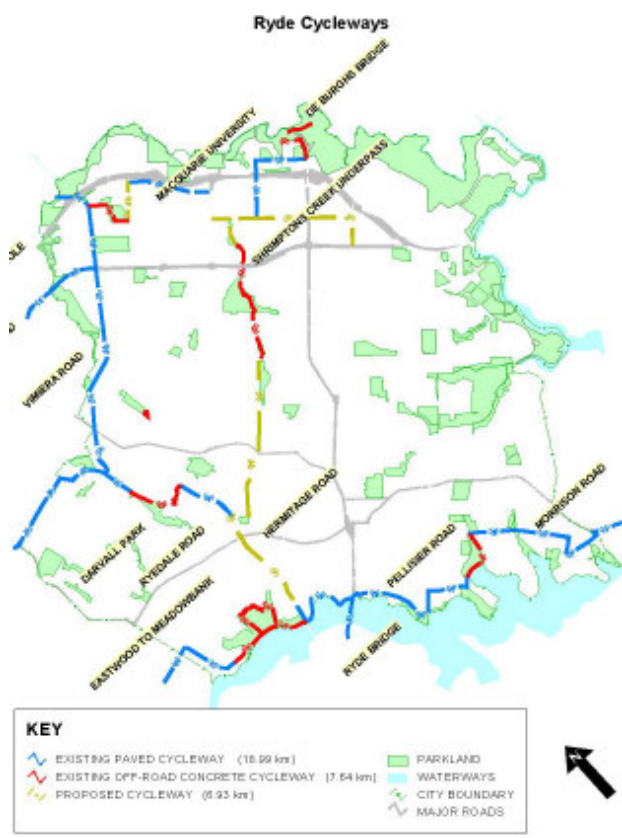
Cycling

Council continued to implement the City of Ryde Bikeways Plan. The Talavera Road – Christie Road to Culloden Road bicycle path was completed this year. Design work was also begun for the Waterloo Road-Wicks Road to Macquarie University and Shrimptons Creek-Back of Peach Tree Road to Waterloo bicycle paths.



The new Ryde City Bikeway provides a continuous link between Macquarie Centre and Patricia street for cyclists

To encourage cycling the City of Ryde has incorporated requirements for showers and bicycle lockers in development control plans. Meadowbank Employment Area DCP and draft Top Ryde Urban Village DCP require new commercial and industrial developments to provide showers and bicycle lockers to encourage cycling and walking. The DCPs also aims to enhance cyclist and pedestrian accessibility and connectivity with the streets. Draft Car Parking DCP will, when adopted, require bicycle lockers and shower facilities for all larger developments.



Draft DCP, Energy Smart, Water Wise which will apply to all buildings in the City, requires industrial and commercial buildings with floor area great than 1000 m² to provide bicycle parking facilities and associated shower/change room facilities. Residential flat buildings also will be required to provide bicycle parking facilities. The draft DCP is currently with Council for consideration.

Pedestrian Amenity and Disabled Access

The City continued to introduce traffic calming measures to improve pedestrian amenity and road safety. Traffic signals were upgraded at Victoria Road/West Parade and eight roundabouts and two wombat crossings were completed. Three wombat crossings are also in progress. Detailed designs for Tennyson and Putney traffic calming project were completed with construction due to begin 2002/2003.

The City aims to address the access needs of disabled members of the community for example by providing kerb ramps. High priority is given to the repair of infrastructure where it particularly impacts on this sector of the community.

Road Safety

Driver attitude has been identified as a major contributing factor to road user safety in our on-road environment. In response to this, a Road Safety Officer was recruited to develop and implement a road safety strategy and action plan for the City with a particular emphasis on behavioural education.

50 kph Urban Speed Limit and Slow Down in Ryde Project

In order to encourage drivers to slow down, Council conducted an education campaign in conjunction with an enforcement program by NSW Police. A Speed Monitor III was used to raise awareness among road users of the speed that they are travelling. The campaign focused on the 40 km/hr School Zones and the 50 km/hr local roads.

“Safety before Convenience” – Illegal parking campaign

A history of complaints to the City of Ryde Traffic Committee indicated that the community was concerned about the impact that illegal parking around schools has on the lives of young school children. The target groups for the campaign were identified as the parents and carers of the school children. All twenty-two primary schools within the City of Ryde were targeted with educational material designed to encourage appropriate driver behaviour around schools. The

communications campaign was also backed up with increased enforcement for these areas, in association with engineering solutions where appropriate.

Future Actions

- ▶ Continue to develop the bikeways network
- ▶ Develop an integrated transport plan



Management Plan 2001/02 Progress Summary - Air

Objective	Strategy	Measures/Targets	Progress
1. Ensure Parramatta-Chatswood Rail Link is completed.	1.1 Continue advocacy for completion of the whole project.	<ul style="list-style-type: none"> • Ensure timely response for Preferred Activity Reports. • Continue representations to State Government. • Continue representations to NSROC. 	Construction work for the Epping-Chatswood section expected to start in late 2002.
2. Ensure Sydney Orbital route and link between M2 and Gore Hill Freeway is completed.	2.1 Continue advocacy for completion of project.	<ul style="list-style-type: none"> • Ensure timely response for Preferred Activity Reports. • Continue representations to State Government. • Continue representations to NSROC. 	EIS for both projects completed. Construction work expected to start in 2003.
3. Promote improvement of public transport facilities to reduce car dependency, pollution and congestion.	3.1 Continue advocacy of public transport. 3.2 Review development processes which impact on transport choice.	<ul style="list-style-type: none"> • Continue to support Bus Priority Measures. 	Proposal to extend T3 Transit lanes on Victoria Road from Cressy Road to Bowden Street being assessed.
4. Upgrade and maintain existing bicycle network.	4.1 Identify community needs. 4.1 Bid for funding and maintain existing network.	<ul style="list-style-type: none"> • Regular meetings of the Ryde Council Advisory Bikeway Committee. • Application for funding submitted annually to RTA. 	Design of Bikeway in Waterloo Road and Shrimpton Creek in progress.

6.	Improve safety at accident black spots.	6.1	Identify and install appropriate traffic facilities.	<ul style="list-style-type: none">• Prioritise black spot locations from RTA Accident Data Base annually.• Prepare and submit applications for funding assistance to RTA annually.	Continue to lobby the RTA regarding accident problems on the State and Regional Roads.
7.	Support for implementation of transport facilities in West Ryde commercial area.	7.1	Implement proposals included in Master Plan for West Ryde.	<ul style="list-style-type: none">• Improvement of traffic management in West Ryde in conjunction with the proposed Woolworth Development.• Seek approval from the RTA concerning traffic changes in West Ryde.?	Development application for the Woolworth Development being processed.

Noise



Noise

GOAL

- To reduce the number of noise complaints through appropriate development assessment and community education

STATE

Noise pollution can be defined as unwanted offensive sounds that unreasonably intrude into our daily activities. The degree of impact of noise generating activities varies according to the intensity, frequency, duration and the time of day that it occurs.

Indicator - Total Number of Noise Complaints

Reporting Period	No of Households Inspected
1999/00	140
2000/01	112
2001/02	121
Movement Towards Sustainability	?

Note: barking dogs are not included in these figures although they make up over 400 complaints per year. Complaints to the Environmental Protection Authority (EPA) are also not included in these figures.

The majority of noise complaints are barking dogs. Approximately 400 written complaints are received each year. Other domestic sources of noise complaints are air conditioners, swimming pool pumps, amplified music, band practice, house and car alarms. Industrial and commercial activities contribute to environmental noise through the operation of plant and equipment, ventilation and refrigeration equipment, public address systems and through the associated traffic that they inherently generate. While traffic noise makes a significant contribution to background noise, few complaints are received perhaps because there is a degree of acceptance of traffic noise.

PRESSURES

- Higher density living
- Buildings with poor acoustic controls
- Increased use of cars

- Bored dogs which bark frequently

RESPONSE

Barking dogs represent the majority of noise complaints received by the City. In order to better manage this problem a number of years ago the City began requiring residents to put their complaints in writing. This resulted in eliminating about half the complaints thus enabling staff to focus on those with serious concerns. The City aims to educate residents about responsible dog ownership and support them in their efforts to control their barking dogs. A loan service of citronella collars is provided for residents who want to trial the collars since not all dogs respond to the collars. A Bark Buster video and brochures with information on dog training and other strategies to control barking are also available. While the City of Ryde prefers to focus on education, if necessary it will issue nuisance orders.



The City also responds to noise complaints on a case by case basis. Often this involves reminding members of the community about noise restrictions which apply to the hours of operation for many household appliances and construction work. No penalty infringement notices were issued in relation to noise complaints this year.

In order to prevent the construction of developments which become the source of noise complaints noise issues are assessed as part of the development approval process. Council may, as part of the approval process, require the preparation of an acoustic report. Remedial work may also form part of the approval. If necessary, monitoring of noise emissions prior to the finalisation of any development can be required in an attempt to identify and alleviate any resulting offensive noise.

Future Actions

- Conduct baseline studies of noise levels of urban locations which interface with industrial areas. These studies will be useful for managing noise creep due to increasing development levels.
- Conduct an industry audit program in Buffalo road Industrial Area, Gladesville. While the focus will be on water pollution, noise pollution will also be identified. Education material and if necessary use of legislation will be used to reduce noise pollution.

Management Plan 2001/02 Progress Summary - Noise

Objective	Strategy	Measures/Targets	Progress
1. Ensure provision of resources for noise monitoring.	1.1 Funding of new sound level measuring equipment.	<ul style="list-style-type: none">Industrial noise monitoring project carried out.	Project deferred to next financial year.



Built Environment and Land



Built Environment and Land

Cities by their nature have a major impact on the environment. They cover land which was previously natural vegetation, they pollute the air, water and land, consume vast amounts of energy and other resources, change water flows and produce large volumes of waste. Sydney's ecological footprint is estimated to be 37 times the size of its land area (EPA 1997). In order to protect the environment we need to consider how our city is planned, what types of buildings are approved, how to minimise the impact of development and how to best manage open space.

Built Environment

GOAL

- To assist in the development of a sustainable community by ensuring that planning approaches balance environmental, economic and social needs.

STATE

Planning for a sustainable city is challenging as there are a number of constraints. The City of Ryde is located in the middle of other urban areas, resulting in significant volumes of through flow traffic, which influences how the City operates. The City is also major employment centre and many of the 50 000 workers drive their cars to work. While the City is responsible for urban planning it has only limited control over roads and public transport. Another challenge is how to address urban consolidation as required by the NSW State Government.

A total of 1400 development applications were received by the City during the current reporting period, compared with 1163 and 1594 for the two previous reporting periods. Whilst not all development applications result in construction they can be to provide a measure of the pressure on the environment. Twelve hundred development applications were approved this financial year representing one billion dollars worth of development.



The Parramatta-Chatswood Rail Link will provide excellent public transport to Macquarie Park

Indicator - Total Number of Development Applications Received

Reporting Period	No of Development Applications
1998/99	1510
1999/00	1594
2000/01	1163
2001/02	1400

PRESSURE

The success of Ryde's employment areas in conjunction with the changes to population structure, growth and composition continues to place pressure on both the natural and urban environment.

RESPONSE

Strategic Planning

Since the previous reporting period various planning provisions relating to Urban Villages and Business and Employment Centres have been introduced, adopted and reviewed.

- In June 2002 the Local Environmental Plan No.120 – Meadowbank Employment Area was gazetted. The associated Master plan, Development Control Plan and Section 94 Contribution Plan have also been adopted.
- Draft Local Environmental Plan No.110 – Eastwood Urban Village is presently waiting for approval from the Minister of Planning.
- Council is presently assessing draft Local Environmental Plan No.123 – Top Ryde Urban Village.
- The Section 94 Contribution Plan is being continually monitored and updated.

As demographic trends change so to do the housing needs of the Ryde community. One approach of addressing the changing housing needs of the community has been the development of draft Local Environmental Plan No.129 – Urban Housing. Draft LEP 129 was exhibited on the 29 April 2002 and is presently with Council for consideration.

With the construction of the Parramatta Rail Link starting in June 2002 further detailed planning for the North Ryde Employment Area has also commenced. After extensive consultation with the community and government reference groups, the City of Ryde in partnership with Planning NSW exhibited the Macquarie Park Structure Plan and transport Management and Accessibility Plan. Both plans will be used as the basis for the production of detailed development control plans for each of the three proposed station precinct areas. (Also see the Transport Chapter).

A residential development strategy that will identify the opportunity for various new housing types within the City of Ryde is currently being developed. Research for the preliminary draft the document, which will be presented to the community and Council for comment has begun.

Sustainable Buildings

Over the past year Council has been actively incorporating sustainability principles into its development controls. Meadowbank Employment Area

DCP Top Ryde Urban Village DCP now have detailed controls regarding solar access, building materials, facilities to store waste, reducing construction and demolition waste, noise, water conservation, energy efficiency and improving cycling and pedestrian amenity. The aims of these controls are to reduce use of resources, improve the comfort and amenity of buildings and protect the environment. Meadowbank Employment Area DCP became effective in November 2001. Council is currently assessing draft Top Ryde Urban Village DCP.

Draft Energy Smart, Water Wise DCP was prepared as a part of Council's commitment to ecologically sustainable development. The draft plan provides energy and water efficient controls for all types of buildings including, houses, villas, residential flats, shops, industrial and commercial buildings (See the Water and Air Chapters for more details). The draft DCP was recently exhibited and is with Council for consideration.

Council's new Stormwater Management DCP, adopted in August 2001, actively encourages the installation of rainwater tanks for use in the garden. The DCP also aims to reduce erosion from building sites by requiring sediment and erosion control plans for new developments.

This was the first full year that the Waste Minimisation and Management DCP has been implemented. The DCP became effective March 2001 and since then Council has been requiring waste management plans for major developments and distributing a guide to waste planning with major development applications. The DCP requires amongst other things, communal composting facilities for multi dwelling developments.

Future Actions

- ▶ Develop a City Vision and Strategy (See Moving Towards Sustainability Chapter for more information)
- ▶ Continue planning for Macquarie Park Employment Area
- ▶ Complete the residential development strategy

Management Plan 2001/02 Progress Summary - Built Environment

Objective	Strategy	Measures/Targets	Progress
1. Ensure Top Ryde Retail Precinct is implemented.	1.1 Bid for funding.	<ul style="list-style-type: none"> ▪ Continue representations to RTA and Local Member to resolve outstanding issues. 	<ul style="list-style-type: none"> ▪ Underway
2. Formulate strategies in North Ryde/Macquarie Park precincts affected by the Parramatta-Chatswood Rail Link.	2.1 Work in partnership with the State Government in the Living Centres Program.	<ul style="list-style-type: none"> ▪ Commence consultation program by 31 July 2001. ▪ Develop joint 'Vision' by 31 August 2001. ▪ Prepare study briefs by 30 September 2001. 	<ul style="list-style-type: none"> ▪ Completed ▪ Completed ▪ Completed

Land Degradation

GOAL

- To minimise land degradation and sedimentation of waterways

STATE

Land degradation is one of Australia's most serious environmental problems. In the City of Ryde problems are caused by past contamination of land and soil erosion due to building development. The existence of acid sulphate soils in Ryde is also a potential problem if they become disturbed.

Contamination may arise from activities that took place on or adjacent to the land, including the improper handling and disposal of chemicals, oils or hazardous substances, or the accidental spillage or leakage of these substances during manufacture or storage. Land uses which may result in contamination include the manufacture or storage of chemicals, service stations, automotive workshops, nurseries and market gardening. Remediation of contaminated land is required where:

- The use of the land changes (eg. from industrial to residential); or
- The degree of contamination is deemed to pose a significant risk of harm to the environment or public health.

Soil erosion from poorly managed building sites is a problem in urban areas. Wind or water erosion from unprotected sites results in loss of top soil and turbidity and siltation of waterways. Erosion in bushland or parks can also be a problem if vegetation is disturbed for example by creation of bush tracks or aggressive weeding.

Acid sulphate soils are found in low-lying coastal areas less than 5 m above the high tide level. Acid sulphate soils are not a threat to the environment while they remain undisturbed. However disturbing the soil or lowering of the water table will accelerate the natural oxidation of pyrite in the soil, creating sulfuric acid. The distribution of acid sulphate soils is mapped on the City of Ryde GIS.

PRESSURES

- The area of land requiring remediation is likely to increase as more industrial land is rezoned for residential use.
- Lack of resources to police poor sediment control practices on building sites

RESPONSE

Land Contamination

The City of Ryde considers land contamination when assessing rezonings and development applications, and imposes conditions requiring remediation of the land where appropriate. The City of Ryde also prevents contamination of land by imposing appropriate conditions on development applications. Information about land contamination is included on Section 149 Planning Certificates.

Sediment and Erosion

All new developments are now required to have sediment and erosion control plans in accordance with Council's new Construction Activities DCP 42, August 2001. Designated Officers have authority to prosecute under the *Protection of the Environment Operations Act 1997* anyone who pollutes waterways with sediment. However limited staff resources means that the offenders are not always caught.

Acid Sulphate Soils

The City of Ryde considers existence of acid sulphate soils when assessing development applications. Information about acid sulphate soils are also included on Section 149 Planning Certificates.

Future Actions

- Review policies and strategies for managing land contamination
- Investigate how the City of Ryde can better enforce sediment and erosion controls on building sites

Open Space

The City of Ryde has a high percentage of open space compared with other local government areas in Sydney. The open space system is important for providing leisure and recreation opportunities as well as conservation of ecosystems. In a highly urbanised environment open space is important for providing people with an opportunity to feel part of nature, to rejuvenate the soul and provide visual amenity. Open space also provides opportunities for passive and active recreation for all members of the community. The open space system also provides environmental servicing such as absorption of water, acting as a carbon sink, providing shade and maintaining biodiversity. (For more

information on bushcare and biodiversity see the Biodiversity chapter).

TREES

GOAL

- To increase the tree canopy in Ryde for amenity purposes and to extend wildlife corridors.

STATE

Trees and their understorey provide shade, act as a carbon sink, provide wildlife corridors and fauna habitat, absorb pollution, protect the land from erosion, and provide attractive landscaping in an urban environment. Council plants a large number of trees on nature strips and in reserves with the assistance of the Greening of Ryde Task Force and bushcare volunteers. There are now 65 000 street trees in Ryde. Trees are protected by the Tree Preservation Order.

RESPONSE

The City of Ryde continued to implement the Tree Preservation Policy, encouraging residents to replant appropriate trees on a one for one basis. This year tree planting and maintenance specifications were developed to guide City of Ryde tree planting programs. The specifications consider site constraints and how to best ensure tree survival. The City of Ryde also obtained local indigenous seedlings which were planted adjacent to remnant bushland areas. In the past year

- 584 trees were planted as part of the street tree planting program;
- 9000 trees were planted in parks via capital works projects and community planting initiatives.

Future Actions

- ▶ Re-instate annual community tree giveaway
- ▶ Develop brochures on appropriate tree species to plant
- ▶ Investigate the feasibility of a City of Ryde community nursery for growing local provenance seedlings

Indicator - Total Number of Trees Planted by Council

Reporting Period	No of Trees Planted
1998/99	11 739
1999/00	13 726
2000/01	14 200
2001/02	10 284
Movement Towards Sustainability	✓

Note: Includes trees planted in bushland as well as planted in street reserves

PRESSURE

- Increased development and higher densities reducing available area for tree cover
- Inappropriate /ad hoc planting of species in the past
- Removal of trees for legitimate purposes under the Tree Preservation Order reduces the overall canopy
- Pressure on remnant bushland and habitats from urban development such as altered moisture and nutrient levels and weed invasion

OPEN SPACE NETWORK

GOALS

- To provide good quality and safe places for recreation
- To protect and enhance the natural environment through management of the open space system

STATE

The City of Ryde open space network is made up of over 200 parks and reserves covering approximately 300 hectares with a fairly even distribution across the City. Significant wildlife and open space corridors exist along the main creek lines radiating from the centre of Ryde to the Lane Cove and Parramatta Rivers.

The Open Space and Recreation Facilities Plan (1996) guides the development and management of the open space system. Specific plans of management have been developed for: Yamble Reserve, Natural Areas,

Pages Creek Catchment, Parramatta River Foreshores, Buffalo Creek Catchment, Sportsgrounds, Local Open Space Parks, Darvall Park, Pryor Park and Denistone Catchment Reserves.

PRESSURES

The typically long narrow reserves are exposed to edge effects such as weed infestations and erosion of creek lines. Other pressures include:

- Increased development and higher population density placing greater demand on facilities
- Compliance with relevant standards for safety and construction
- Balancing the need of users versus the need to maintain natural areas to protect biodiversity

RESPONSE

Improvements to the value of \$3,126,000 were carried out in the City of Ryde's Parklands in 2001/2002. Major upgrading of district park facilities was commenced at Yamble Reserve, Anzac Park and Shepherds Bay. These upgrades will continue into the next financial year.

Other improvements included fencing at Cleaves Park, pathway and drainage to Halcyon Park, and a shade structure and barbecues at Putney Park. A safety fence was installed along Archers Creek at Meadowbank Park.



Ryde Park - a scenic part of the City's open space

Future Actions

- ▶ Continuation of projects into the 2002-2003 financial year
- ▶ Ongoing asset maintenance
- ▶ Community needs will be assessed via the community consultation process for City Vision/City Strategy next year

SPORTING FACILITIES

GOALS

- To provide safe and playable venues for organised sport
- To manage sporting facilities in a manner which protects the environment

STATE

The City of Ryde manages 145 sporting fields on 58 hectares of land. Many fields are nearing maximum capacity with some being overused. The Sportsgrounds Plan of Management guides the development and management of sporting fields.

PRESSURES

- Increased populations creating higher demand for facilities
- Broad diversity and popularity of sporting codes available to the public vs. finite land availability
- Adjoining residential amenity
- Risk management
- Aging facilities and assets

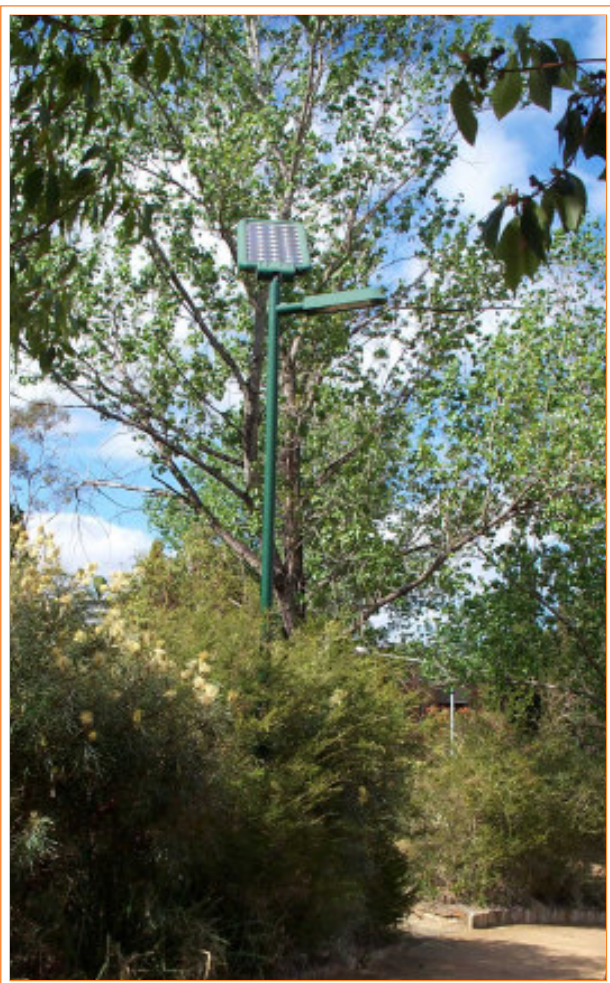
RESPONSE

- Sports safety guidelines and checklist adopted and issued to sports clubs
- Renovation of fields and sub-surface drainage at:
 - Gannan Park, Ryde
 - ELS Hall Park, Ryde
 - Meadowbank Park, Meadowbank
- Purchase of winter season cricket wicket covers

- Development of the Ryde Sports Forum which meets biannually to discuss sporting issues relevant to the City of Ryde
- Facilitate best use scenarios and information sharing via the Ryde Sports Forum
- Ongoing asset maintenance

Future Actions

- ▶ Continue to apply for funding for renovation of old facilities, including grants
- ▶ Facilitate best use scenarios and information sharing via the Ryde Sports Forum
- ▶ Ongoing asset maintenance

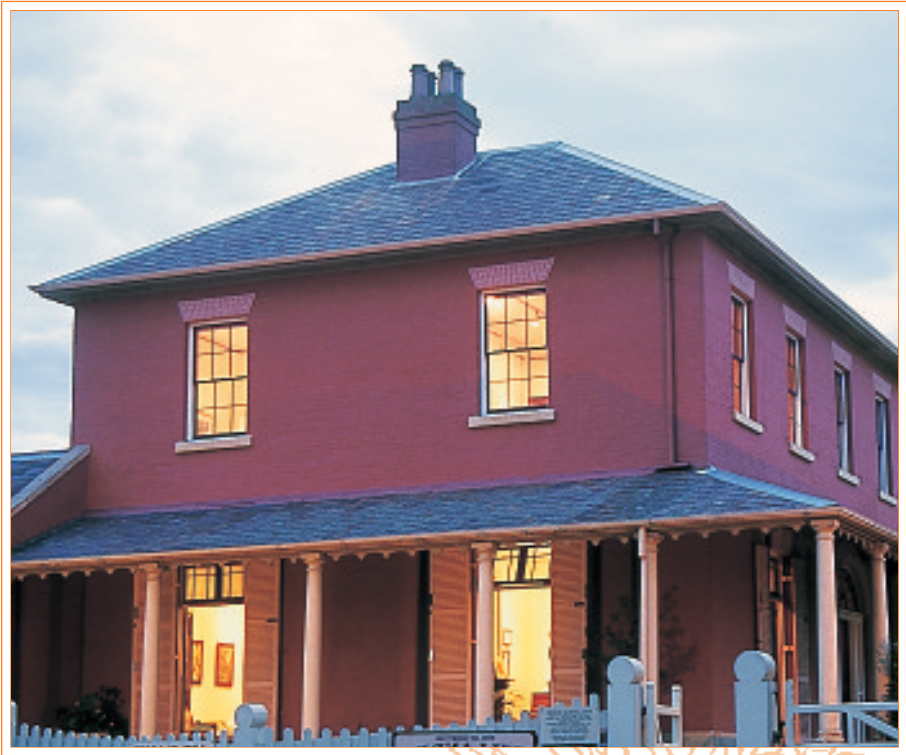


Solar lights in Wilga Park

Management Plan 2001/02 Progress Summary - Open Space

Objective	Strategy	Measures/Targets	Progress
1. Continuation of a comprehensive street tree management program.	1.1 Target street tree projects via: <ul style="list-style-type: none"> • Community contact • Road reconstruction projects • Street Tree Task Force • Collector Road • Boulevard planting 	<ul style="list-style-type: none"> • Minimum 20 streets planted • Planting undertaken during September – October 2001 and March – May 2002 	<ul style="list-style-type: none"> • 588 trees planted in 16 streets • Budget expended
2. Improvement of regional public space facilities.	2.1 2.1 Shepherds Bay Stage IV	<ul style="list-style-type: none"> • Project planning completed by November 2001 • Construction completed during January to June 2002 	<ul style="list-style-type: none"> • Project carried over to 2002-2003 pending the de-commissioning of Parsonage Street Depot
3. Improvement of carrying capacity of sports fields	3.1 Gannan Park – re-grading and drainage	<ul style="list-style-type: none"> • Design completed by July 2001 • Construction completed during August to September 2001. 	<ul style="list-style-type: none"> • Project complete

Heritage



Heritage

GOALS

- To identify, protect and manage aboriginal, built and natural heritage in the City of Ryde
- To increase awareness and understanding of aboriginal, built and natural heritage.

Non Aboriginal Heritage

STATE

Our heritage involves places and landscapes of historic, cultural, social, spiritual significance, archaeological, architectural or aesthetic significance. The heritage of Ryde is significant because it:

- is the third area of European settlement in Australia following settlement at Sydney Town and Parramatta
- represents an important link in the early water transport connection between the early settlements of Sydney and Parramatta
- typifies the impact of the early systems of transport on urban growth such as river, road and rail and contains items representative of early urbanisation of Sydney's northern metropolitan area
- contains distinctive post-World War II examples of residential, commercial and industrial development within the Sydney metropolitan context

We protect heritage for many reasons including aesthetics and because it maintains a link with the past. Protecting heritage is also often a more sustainable practise than demolishing and redeveloping a site because of the large amount of resources and energy used in redevelopment.

Ryde's heritage is protected at a local level by Ryde Planning Scheme Ordinance which currently protects four heritage items. Ryde Heritage study completed in 1988, provides a thematic based history of Ryde from a colonial farming area to a suburban area of Sydney. The study identified over 200 individual and collective items of heritage. Twenty-four items are considered to have State or National significance. Some of the most important heritage properties in Ryde are owned and/or managed by Council. Of the twenty-one heritage places and sites owned by Council, six have maintenance plans.

Indicator - Number of Protected Heritage Items and Heritage Properties within Conservation Areas

Reporting Period	Total No of Heritage Items	Total No of Items within Conservation Areas
1999/00	4	0
2000/01	4	0
2001/02	4 (174 proposed)	(168 proposed)
Movement Towards Sustainability	✓	✓

Ryde Library has a local studies collection which is a useful heritage resource. Two well-established community heritage groups, the Ryde Historical Society and Brush Farm Historical Society are based in Ryde.

PRESSURES

There are considerable redevelopment pressures on the whole of Ryde. These pressures include the upgrading of family homes, property speculation in the creation of multiple housing such as villa homes, and the revitalisation of the urban villages and areas such as Meadowbank and the North Ryde Employment area.

RESPONSE

The protection of heritage was enhanced with development of a comprehensive Local Environment Plan (LEP) No 105. The draft LEP will protect 130 individual items and four heritage conservation areas. Individual heritage items which will be protected include aboriginal sites, schools, churches, clock tower, fountains, factories, shops and houses. The LEP is now awaiting final approval by the Minister for Planning.

For the first time Council now has a part time Heritage Officer. Her role includes assessing development applications for items listed in draft Local Environmental Plan 105, or for properties in the vicinity of heritage items. Assistance to applicants which have properties which are heritage items, or potential heritage items, is provided through pre-lodgement advice from Council's Heritage Officer.

In the past year Council also adopted Eastwood House Estate Development Control Plan DCP 32 which protects heritage in Eastwood. Council continued to support community heritage groups by providing accommodation for their headquarters and meetings. Councillors attended a heritage information session and Ryde

Heritage Committee continued to represent the community and provide advice on heritage matters.

Council also worked to protect its own heritage properties by:

- Finalising a plan for the restoration of The Hermitage, the 1838 home of John Blaxland;
- Completing a draft conservation management plan for Rockend Cottage and Brush Farm House;
- Carrying out minor conservation works on Willandra; and
- Commencing a full internal restoration of the Parsonage.

Aboriginal Heritage

STATE

Ryde was formally occupied by the Wallumedegal clan of the Dharug tribe. Aboriginal sites in Ryde are predominantly located around the foreshores of the Parramatta Rive and Lane Cove River. In the City of Ryde there are sixty-two known aboriginal heritage sites. Some aboriginal sites are protected via the draft Heritage LEP.

PRESSURES

- Erosion damages engravings
- Vandalism
- Damage to sites when works are undertaken in the vicinity of the site, due to lack of knowledge of site locations

RESPONSE

Aboriginal Gamaraiagal Heritage Walk

The Glades Bay Park section of the track was constructed this year utilising compacted pink sandstone in-fill with treated pine timber edge. The entryway has been formalised using white carved sandstone blocks creating a low retaining wall, which also acts as a seat. Two treated pine pedestrian bridges link the walk to two viewing platforms. Renowned Sydney artist Julie Morris has created six fine line drawings combined with original local artwork obtained from the Natural History Museum in London. These works combined with detailed written work have brought

to life the interpretive signage. The official opening of the Waluba Track will occur before the end of 2002.

Protection of Aboriginal Sites

Council staff refer to the draft Heritage LEP and the aboriginal sites register when assessing development applications. Further work is now required to refine the aboriginal sites register and the development application process.



Aboriginal Gamaraiagal Heritage Walk was completed this year

Future Actions

- ▶ Refine the process for assessing development applications for places located near aboriginal sites
- ▶ Verify data in the Aboriginal Sites register
- ▶ Adopt the Northern Sydney Aboriginal Heritage Plan
- ▶ Establish meaningful Aboriginal cultural and heritage education

Management Plan 2001/02 Progress Summary - Heritage

Objective	Strategy	Measures/Targets	Progress
1. Achieve restoration or conservation of Brush Farm House.	1.1 Continuation of funding strategy at \$100,000 pa. 1.2 Investigation of partnership opportunities.	<ul style="list-style-type: none">• Completion of Conservation Management Plan by December 2003.	<ul style="list-style-type: none">• Agreed conservation Management Plan completed.• Proposed occupancy agreement is being pursued with the Dept. of Corrective Services.

Human Health



Human Health

An important function of the City of Ryde is protecting public health, which is essential for the well-being of the community. The City of Ryde runs specific health prevention programs in the areas of mosquito control, food safety, blood borne diseases, legionnaires disease, vaccinations, public swimming pools and spa's and tobacco. In the past year the City of Ryde staff investigated more than 216 complaints concerning public health issues including sewer overflows, improper waste storage and handling, rat and other pest infestations, overgrown land, and defective roof water drainage.

Mosquito Control Program

GOALS

- To reduce mosquito breeding incidence and nuisance through education and surveying
- To monitor health risks in the area by testing sampled mosquitoes for arbovirus

STATE

The City of Ryde has participated in the NSW Health Arbovirus Surveillance and Mosquito Monitoring Program for the past ten years. The program aims to detect unusual mosquito activity and provide an early warning of breakouts of mosquito borne viruses such as Murray Valley Encephalitis and Kunjin. Ross River Virus and Barmah Forest Virus are most likely to occur in Metropolitan Sydney. In the City of Ryde, Ross River virus is spread by freshwater species.

City of Ryde staff trap and monitor mosquitoes in order to establish health risks to the community. Complaints are investigated and spraying with a natural larvicide is conducted if required. Community education programs advise residents on how to avoid mosquito bites and aim to reduce ponding on private land in order to reduce mosquito breeding.

PRESSURES

- Water accumulation in ponds and receptacles result in mosquito breeding, which is evident on many properties
- Residents complaints about mosquito infestations



The City of Ryde holds community education displays to educate the community about mosquitos

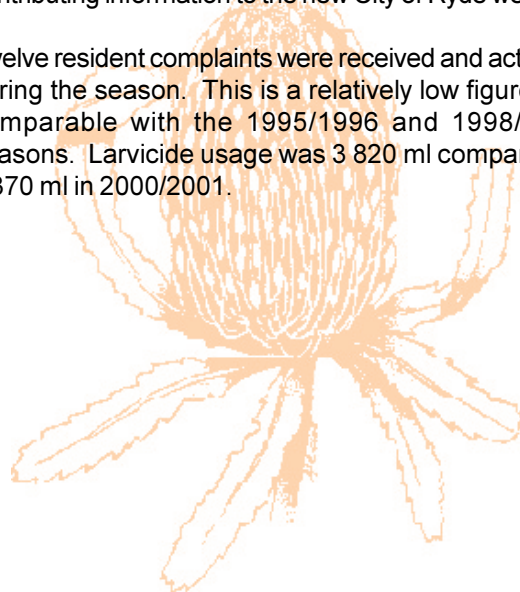
RESPONSE

Trapping was carried out over fourteen weeks at the six regular sites used in the previous seasons. A total of 2 508 adult mosquitoes trapped, which is the fifth lowest figure for ten years. Fifteen different species were found, of which twenty percent were saltmarsh species.

Arboviral testing of adult mosquitoes trapped in Lambert Park revealed no viruses in the City of Ryde. In fact only five arbovirus isolates were made in rural and coastal NSW. In NSW the total number of human notifications for Ross River Fever and Barmah Forest in 2001/2002, was significantly lower than the same period in the +previous season.

Community education this season included conducting residential surveys and interviews, school talks, holding public displays in libraries and shopping centres, supplying Early Childhood Centres with pamphlets, and contributing information to the new City of Ryde website.

Twelve resident complaints were received and acted on during the season. This is a relatively low figure and comparable with the 1995/1996 and 1998/1999 seasons. Larvicide usage was 3 820 ml compared to 1 370 ml in 2000/2001.



Food Safety

GOAL

- To prevent outbreaks of food poisoning in the City of Ryde

STATE

Poor hygiene and food-handling practices may result in contamination of food and food-borne illness. To ensure food safety, all food businesses are required to comply with the requirements of the *Food Act 1989* and Regulations. There were more than 470 food businesses in the City of Ryde in the current reporting period.

PRESSURE

- Changes in consumption patterns have increased the risk of food poisoning outbreaks with more people eating-out or consuming ready-to-eat foods from retail outlets

RESPONSE

City of Ryde staff carried out routine inspections of 438 food businesses and investigated 35 complaints. Action was taken to ensure recalled foods were removed from sale. Training courses for food-handlers were also conducted, in association with Ryde TAFE, and newsletters were distributed to food businesses to keep operators informed of new requirements and other relevant information.

Blood-borne Disease

GOAL

- To prevent the transmission of blood borne disease

STATE

Blood-borne communicable diseases such as HIV and hepatitis C may be transmitted from person to person through the use of inadequately sterilised sharps and other equipment used to penetrate the skin. Transmission of blood-borne disease may also occur through stick injuries caused by inappropriately discarded sharps.

All premises carrying out skin penetration procedures are required to be registered with the City of Ryde and operators must carry out these procedures in

accordance with the requirements of the *Public Health (Skin Penetration) Regulation 2000*. In the current reporting year 102 premises were registered with Council to carry out skin penetration procedures, including acupuncture, ear piercing, hair removal and tattooing. Also, in the same period, eight reports were received about syringes left in public places.

PRESSURE

- Syringes not properly disposed of

RESPONSE

City of Ryde staff carried out routine inspections of 79 premises which carry out skin penetration procedures to ensure compliance with the relevant regulations. City of Ryde staff collected and disposed of discarded syringes left in public places. Arrangements have been made for a number of local pharmacies to accept household medical waste for disposal (also see Chapter on Waste).

Legionnaires' Disease

GOAL

- To ensure that there are no outbreaks of Legionnaires' disease

STATE

Legionnaires' disease is a rare but serious form of pneumonia commonly associated with water-cooling systems (cooling towers) in buildings. The disease is contracted by inhaling tiny water droplets or aerosols infected with *Legionella* bacteria. To reduce the risk of an outbreak, all water-cooling systems are required to be registered with the City of Ryde and must be installed, operated and maintained in accordance with the requirements of the *Public Health (Microbial Control) Regulation 2000*. There were 192 registered water-cooling systems in the City of Ryde in the current reporting period.

PRESSURE

- Water-cooling systems not properly maintained may result in an outbreak of Legionnaires' disease

RESPONSE

A consultant was employed to inspect all water-cooling systems in the City of Ryde and ensure that they were being properly maintained.

Vaccine-Preventable Disease

GOAL

- To ensure children in the City of Ryde are properly vaccinated

STATE

Vaccine-preventable diseases are a serious but avoidable risk to human health. Recent data from the Australian Childhood Immunisation Register indicates that 90.2 percent of one-year-old children were fully immunised as at 31 March 2002 (Health Insurance Commission, 2002). This is a one percent decrease in the immunisation coverage rate since March 2001.

PRESSURE

- Some sectors of society are questioning the health benefits of immunisation thus are avoiding vaccination and potentially putting the rest of the population at risk

RESPONSE

Council conducts regular immunisation clinics against measles, mumps, rubella, diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, *Haemophilus influenzae* type B (HIB), and hepatitis B for children up to 19 years. Booster doses of measles/mumps/rubella vaccine are also available for young adults up to 30 years. More than 4,316 vaccinations were given at the City of Rydes immunisation clinics over the current reporting period.



The City of Ryde holds twice monthly immunisation clinics to combat against diseases such as measles, mumps and rubella

Tobacco Smoking

GOAL

- To ensure shop owners in the City of Ryde do not sell tobacco products to minors

STATE

Smoking is a leading cause of lung cancer and cardiovascular disease and results in the deaths of around 20,000 Australians each year. Studies have also shown that the younger a person starts smoking, the less likely they are to quit and the higher the risk of smoking related disease.

Under the *Public Health Act* 1991, it is an offence to sell tobacco products to a person under the age of 18 years. However, a City of Ryde survey of local tobacco retailers in 2001 found that some retailers thought that it was 'OK' to sell cigarettes to minors and failed to ask for proof-of-age.



The City of Ryde is taking the puff out of tobacco smoking

PRESURES

- Retailers selling to minors
- Peer pressure and advertising encourages young people to take up smoking

RESPONSE

In conjunction with officers from NSW Health, City of Ryde staff carried out compliance checks of tobacco retailers to ensure that tobacco products were not being sold to minors.

Public Swimming Pools and Spa Pools

GOAL

- To ensure swimming pools and spas are properly maintained to prevent the spread of disease

STATE

Poorly maintained swimming pools and spa pools may be contaminated with disease causing organisms, which may be transmitted to bathers. Common infections associated with swimming pools include eye, ear and skin infections and gastrointestinal diseases. To prevent transmission of disease, all public swimming pools and spa pools are required to be maintained in accordance with the requirements of the *Public Health (Public Swimming Pools and Spa Pools) Regulation 2000*. There were 15 public swimming pools and three public spa pools in the City of Ryde in the current reporting period.

PRESSURE

- Poorly maintained public swimming pools pose a health risk to the community

RESPONSE

City of Ryde staff inspected and tested all public swimming pools and spa pools in the City of Ryde to ensure compliance with the relevant regulations.



All public swimming pools and spa pools are tested to ensure compliance with relevant health regulations

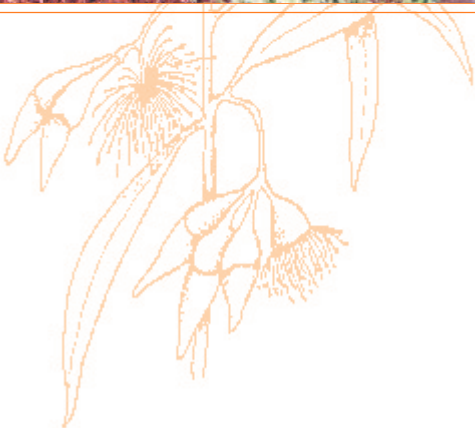
Future Actions

- ▶ Continue all the above health prevention programs

Management Plan 2001/02 Progress Summary - Human Health

Objective	Strategy	Measures/Targets	Progress
1. Continuation of Council's Mosquito Control Program.	1.1 Bid for funding.	<ul style="list-style-type: none"> Program operating between December 2001 and March 2002. 	<ul style="list-style-type: none"> Monitoring program occurred as usual. A permanent environmental/mosquito monitoring position was established
2. Improved mosquito control through creek maintenance activities.	2.1 Allocation of funding for creek maintenance	<ul style="list-style-type: none"> Maintenance work carried out in identified locations subject to funding being approved. 	<ul style="list-style-type: none"> Maintenance works carried out as planned

Community Involvement



Community Involvement

The community in the City of Ryde are actively involved in environmental protection and monitoring. Community groups include local historical societies, environment groups, bushcare volunteers and the Community Environmental Management Strategies Group.

Local Historical Societies

- Ryde District Historical Society
- Brush Farm Historical Society

Local Environment Groups*

- Friends of Glades Bay Park
- Friends of Darvall Park
- Ryde-Hunters Hill Flora and Fauna Preservation Society
- Brush Farm Park Preservation Group
- Friends of Denistone Park
- Greening of Ryde Task Force

Supporting Volunteer Groups

The City of Ryde supports volunteer groups by providing them with meeting room accommodation, offering grants, assisting in grant applications and holding an annual volunteer awards night. The City is particularly active in supporting bushcare volunteers (see below).

Bushcare Volunteer Program

Bushcare volunteers play a vital role in helping to restore the City's bushland. In the past year volunteers did 7,600 hours of bush regeneration work which was an increase of 4,098 hours. As discussed in the Biodiversity Chapter, this is the first full year that Council has had a co-ordinator for the bushcare volunteers. The Bushcare Volunteers Co-ordinator has been instrumental in increasing the number of volunteers to over seventy people. The Co-ordinator also developed occupational health and safety procedures, a pesticide policy and a bushcare logo to promote the program. A barbecue for volunteers was held at Christmas.

* This list does not include all bush regeneration groups.

Community Environmental Management Strategies Group

The Community Environmental Management Strategies Group was created in 1998 in order to facilitate community consultation and involvement in the development of environmental management strategies. The group also looks at Council's State of the Environment Reporting process and environmental monitoring. Five members of the community with environmental knowledge and expertise were selected to be in the group. The group met twice in the past financial year to discuss Council's Management Plan and other environmental issues. They also met to discuss the development of indicators for the State of the Environment Report.

City Vision

Over the next year Council will be developing with the community, a City Vision and Strategic Plan. The vision and plan will set out what the community considers must happen over the next twenty years. Extensive opportunities will be provided for the community to be involved in the development of the vision and plan (Also see the Chapter Moving Towards Sustainability).

Future Actions

- ▶ Create an environment volunteer award category in the Community Volunteer Awards
- ▶ Participate the EPA's campaign "Volunteering for the environment"
- ▶ Ensure all sectors of the community are actively involved in the development of the City Vision and Strategy



Moving Towards Sustainability



Moving Towards Sustainability

Moving towards a more sustainable society is an enormous challenge for the City of Ryde. It will be a process of change which needs to be implemented over many years. Some of the approaches being used to achieve this change include developing environmental education programs to encourage community and staff to become more sustainable and measuring progress towards sustainability by developing indicators. In the 2002-2003 the City will also be embarking on a project to develop a vision and plan for the City for the next twenty years.

Environmental Education

Education is essential for creating a more sustainable society. First it is necessary to have the awareness that something needs to change, then it is necessary to have knowledge and will to change it. Over the past year Council's environmental education program has included:

- Education of bushcare volunteers in bush regeneration techniques (Biodiversity Chapter)
- Brush Farm Park Noxious Weed Strategy (Biodiversity Chapter)
- Stormwater education at Eastwood Plaza (Water Chapter)
- Waste education (Waste Chapter)
- Mosquito education (Human Health Chapter)
- In-house waste education program (Waste Chapter)
- Environment displays at Granny Smith Festival
- Articles in Ryde City News and local newspapers

These programs have included awareness components and have assisted residents to make actual changes. For example the Brush Farm Park Noxious weed program resulted in 41 tonnes of weeds being removed by residents. The City of Ryde intends to further develop its environmental education program through the creation of a cross divisional environmental education team. The team will be responsible for developing co-ordinated and holistic environmental education programs.

Measuring Change

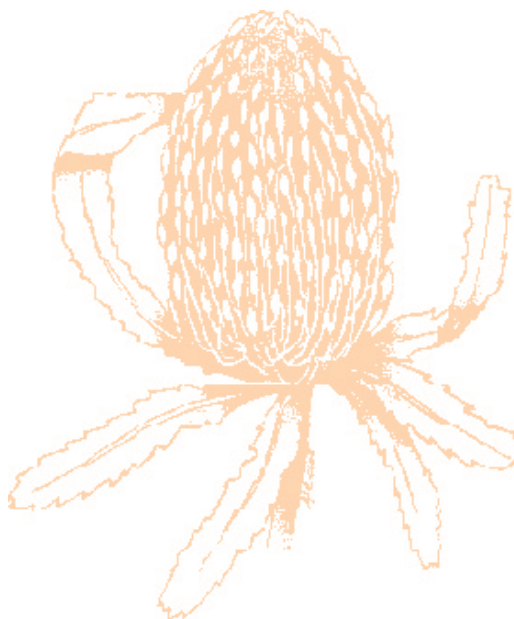
In order to measure progress towards sustainability it is necessary to have indicators. As mentioned in the introduction, this year Council staff and the Community Environmental Management Strategies Group reviewed indicators used in previous State of the Environment Reports. As a result of this review process a list of core indicators was developed. Indicators are highlighted throughout this document via green text boxes. (also see the Introduction).

City Vision and Strategy

The City Vision and Strategy is a new citywide planning initiative that will provide a framework for deciding the City's progress, priorities and actions over the next twenty years. The City Vision will provide an overall focus for the future direction of Ryde. Underneath the vision will be a broad strategic plan which will provide direction in areas such as transport, environment and community well being. An extensive participatory community consultation program is being planned for 2002-2003.

Environment Strategy

For the past few years the State of the Environment Reports have recommended the development of a holistic environment strategy. This year preliminary work began on the development of the strategy including a review of Council's environmental activities and programs. Next year the community will be asked to be involved in developing environmental priorities as part of the City Vision process.



Recommendations from the State of the Environment Report

The challenge with implementing sustainability is that it requires involvement of all sectors of Council. After a review of this year's State of the Environment Report a series of recommendations were developed to assist in improving linkages and co-ordination of environmental activities in Council.

Overall Recommendation

It is recommended that all staff involved in the development of the State of the Environment Report be invited to a meeting to discuss ways to improve environmental outcomes in Ryde. Below are some suggestions of actions which could be taken.

Cross Divisional Projects

Developing and implementing environmental projects and policies requires a cross-disciplinary approach. This means it is essential that there is good communication, sharing of knowledge, co-operation and understanding between the various work units in Council. It is therefore recommended that:

Workshops

- A facilitator be appointed to conduct a number of staff workshops to improve understanding, knowledge sharing and cooperation between the various work units. Topics to be covered by the workshops include: water quality monitoring, litter management, bushfire, trees, and weeds.

Email groups

- Email groups be set up for the various cross divisional projects such as bush fire, water quality monitoring etc as a tool to improve communication between the groups.

Environmental Education

While infrastructure projects and environmental policies are essential, the effectiveness of these approaches depends on whether there is appropriate education. It is therefore recommended that:

- an increased focus is given to environmental education through the creation of an environmental education team.

- adequate funding be provided to implement environmental education initiatives, including development of appropriate brochures.
- adequate funding be provided to provide environmental training for staff for example in sediment and erosion control.

Implementation of New Environmental Strategic Planning Policies

In the past year several new LEPs and DCPs with a sustainability focus were adopted by Council. It is important that assessment officers understand how to implement these policies and that applicants understand the new requirements. It is therefore recommended that:

- planners and the environmental assessment units have a workshop to discuss how to implement new strategic planning policies such as Waste Minimisation and Management DCP, Stormwater Management DCP and the Draft Energy Smart, Water Wise DCP.
- environmental education packages be created to hand out with new development applications to explain the new requirements. (A different type of package would be required for major developments as opposed to private dwellings).
- threatened plant species and aboriginal heritage sites be added to Council's database.

Enforcement of Environmental Legislation and Policies

Environmental legislation and policies will not be effective if the community thinks there is little enforcement. As the Ranger Unit is currently being expanded now would be a good time to review the focus of the units activities. It is therefore recommended that:

- enforcement of environmental legislation and policies be given a higher priority (also see sediment and erosion control and litter below).
- adequate training be provided to staff to ensure they have the capabilities to enforce the legislation (also see environmental education)
- issuing of fines be periodically publicised in the local media to deter others from committing the same offense.

Sediment and Erosion Control

- responsibility for monitoring the implementation of sedimentation and erosion control plans be clarified.
- appropriate training be provided to the officers with responsibility for monitoring sediment and erosion control plans
- records are kept of the number of infringement notices issued for inadequate sediment and erosion control and that these figures be included in the quarterly management plan reports.

Litter

- greater emphasis is placed on enforcing littering

Development of Indicators

In the process of developing indicators it became clear that Council did not have adequate data in some areas. It is therefore recommended that:

- data collection protocols are reviewed to ensure that more and better indicators can be developed
- the indicators are reviewed in May 2003

Tree Cover

- the number of trees covered by tree preservation orders are recorded
- the costs of measuring the change in tree cover on private land via GIS mapping be investigated

Noise

- the number of barking dog complaints be recorded

Council Operations

It is important that Council is seen to be an example of best environmental practice. It is therefore recommended that:

- an environmental audit program be developed for all aspects of Council's operations.

Management Plan

It is recommended that:

- sustainability objectives similar to the Environmental Planning Division are incorporated into the objectives of all Divisions and work units to ensure consistency throughout the organisation.

Review of Community Environmental Management Strategies Group

Feedback from the Community Environmental Management Strategies Group is that there could be a better process for incorporating community views. It is also noted that not all of the community group members regularly attend meetings. It is therefore recommended that:

- the process for incorporating community views into the SOE and Management Plan be reviewed
- the membership of the group (including length of term) be reviewed
- protocols for attending meetings be reviewed



Management Plan 2001/02 Progress Summary - Sustainability

Objective	Strategy	Measures/Targets	Progress
1. Holistic review of planning and co-ordination and resourcing of Council's environmental management strategies.	1.1 Re-organisation of Civic Policy and Environmental Policy within Environmental Planning Group.	<ul style="list-style-type: none"> • Linkage of Council's Management Plan to State of Environment Report. • Community involvement in environmental management strategies. • Audit of Council's operation and properties. 	<ul style="list-style-type: none"> • The 2001-2002 SOE now includes progress summary tables from the Management Plan • One meeting was held, and group was involved in developing indicators • See below
2. To implement the principles of ecologically sustainable development (ESD) within the operations of Council.	2.1 Review the operations of Council to determine compliance with ESD principles.	<ul style="list-style-type: none"> • Investigate parks and sportsfield activities by July 2001. • Investigate operations at Council Depots by August 2001. • Prepare timetable for review of other Council properties and services by October 2001. • Inclusion of energy and water efficiency designs in new capital works programs. 	<ul style="list-style-type: none"> • Storage facilities at Ryde Park and Magdala park were audited 30/7/02 • Wellington Road depot was audited 30/7/02 • Deferred until 2002-2003

Objective	Strategy	Measures/Targets	Progress
	2.2 Develop and assist in the implementation of ESD programs.	<ul style="list-style-type: none"> • Develop a draft Local Air Quality Management Plan (LAQMP) by November 2001. • Assist in the delivery of programs and activities identified in Council's Stormwater Management Plans. 	<ul style="list-style-type: none"> • Deferred until 2002-2003 • Deferred until 2002-2003 • Deferred until 2002-2003 • Contributed to the Eastwood shopping centre stormwater education project.
	2.3 Undertake management reviews of existing Council programs to assess status of compliance in terms of ESD.	<ul style="list-style-type: none"> • Review the draft Management Plan against the recommendations of the State of the Environment Report 2000. • Prepare the Council's SOE Report 2001 by November 2001. • Report twice yearly on progress of the Estuary Management Plan. • Review Council contract and tender process to ensure that ESD is considered in the purchasing of goods and services. 	<ul style="list-style-type: none"> • Recommendations from the SOE were incorporated into the 2002-2003 Management Plan. • SOE prepared on time. • Reports provided as required. • Project deferred to 2002-2003
3. To assist the achievement of ESD in the community.	3.1 Develop and review environmental policies and strategies.	<ul style="list-style-type: none"> • Support the Community Environmental Management Strategies Group 	<ul style="list-style-type: none"> • One community environmental management strategies meeting was held

Objective	Strategy	Measures/Targets	Progress
		<ul style="list-style-type: none"> • Liaise with Urban Landscape Facilities & Services in support of regional weed strategies. • Report emerging environmental issues which may affect the policy or operational aspects of Council. • Review draft DCP and policy in relation to ESD principles. 	<ul style="list-style-type: none"> • One community environmental management strategies meeting was held • Attended regional weed meeting when required. • Reported on issues as required. • Draft Energy Smart/Water Wise DCP was reviewed
	3.1 Implement environmental education campaigns.	<ul style="list-style-type: none"> ▪ Support environmental education programs which address priorities identified by State and Federal Government. ▪ Distribute updated community educational material for mosquito control in the summer of 2001/2002. 	<ul style="list-style-type: none"> • Brush Farm Noxious weed project and Eastwood stormwater education project were implemented • Education material distributed
	3.3 Publicise the environmental aims and achievements of Council and the community.	<ul style="list-style-type: none"> ▪ Ensure regular environmental interest coverage for Council publications. 	<ul style="list-style-type: none"> • Ten articles in local newspapers and Environment section in the Ryde Community Report
	3.4 Examine ways and means of establishing a Local Agenda 21 of equivalent process.	<ul style="list-style-type: none"> ▪ Consultation with Council and community stakeholders. 	<ul style="list-style-type: none"> • Project deferred to 2002-2003

Note: some projects were deferred to 2002-2003 because a position was vacant for five months.

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