



City of Ryde



State of the Environment Report

2003



ENGLISH

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ARABIC

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ARMENIAN

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CHINESE

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FARSI

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ITALIAN

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KOREAN

이 문서가 무슨 의미인지 모르실 경우에는 1 Devlin Street, Ryde 에 있는 Ryde Civic Centre 로 오시거나 (월 – 금, 오전 8:30 – 오후 4:30), 전화 131 450 번으로 전화 통역 서비스에 연락하셔서 통역사에게 여러분 대신 Ryde 시청에 전화 9952 8222 번으로 연락을 부탁드립니다.

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Chief Executive's Foreword



The State of the Environment (SoE) report is fundamentally a statutory obligation but more importantly it is City of Ryde's opportunity to report the state of our local environment to the community of Ryde. The report showcases the many ways the City has embraced the principles of ecologically sustainable development in local area programs and decision making.

Local Government continues to be that level of government closest to the community and because of this plays an integral role in managing, developing and protecting the environment at the community level. Often the challenge is to carefully balance economic, social and environmental protection and how well we do this reflects on the quality of our environment.

The City of Ryde has shown strong progress by implementing a number of new and ongoing environmental projects throughout the year, which proved successful in contributing to environmental control and protection.

The City's Waste Management Section for instance encouraged residents to reduce their waste by offering a comprehensive recycling service as well as promoting composting and worm farming. As a result, recycling increased and waste going to landfill decreased at significant rates.

Over the past year, the City has also been particularly active in energy conservation initiatives and recently adopted the Energy Smart Water Wise Development Control Plan (DCP) requiring specific energy efficient controls for all types of buildings, through the development process. Early indications are that the DCP is being well received by the local community and this will have long term environmental benefits for our local environment.

In acknowledging the City's responsibility to conduct appropriate environmental education targeting staff and the local community, a cross divisional Environmental Education Team was formed to coordinate the City's community education program on issues dealing with environmental protection. Some of its good work included an 'in house' litter campaign concerning littering of plastic items and cigarette butts, associated environmental talks at schools and static displays at the Granny Smith Festival and the Field of Mars Open Day.

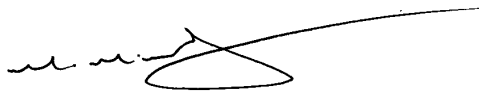
To protect water quality by reducing water pollution, pollution control devices were constructed at Maze Park, West Ryde and at Brush Farm Park, Eastwood. Creek rehabilitation work at Maze and Darvall Parks and Barton Reserve, and along Martins, Shrimptons and Miriam Creeks also continued to improve the quality of water flowing into the waterways.

To conserve and enhance natural areas, over 25 bushland parks received professional bush regeneration contract work of over 9 400 hours and the work

of volunteer bushcare groups to restore the City's bushland. The City of Ryde is particularly green and efforts of the bushcare teams are greatly appreciated.

These programs are a few examples of the City's determination to wisely manage the local environment and to effectively achieve sound and balanced environmental strategies. The assistance of volunteer groups, local residents and businesses is crucial to the success of these programs and ongoing community consultation will ensure the City continues to manage its strategies in an ecologically sustainable manner.

Next year is a comprehensive SoE reporting period and this year's supplementary SoE report will be used as a basis for that report. We look forward to next year and are optimistic about the future of Ryde. It is with great pride that I present the 2002/03 State of the Environment Report to the Ryde community.



Michael G McMahon
Chief Executive of the City of Ryde

Highlights

Effective Waste Management System

The City of Ryde encourages residents to reduce their waste by offering a comprehensive recycling service, as well as promoting composting by providing compost and worm farms at cost price. This year domestic recycling increased by 573.81 tonnes compared to last year and domestic waste going to landfill decreased by 1 717 tonnes, both very encouraging results for the good of our environment. Furthermore, recycling of construction and demolition waste arising from the City's public works (road and drainage construction projects) achieved a remarkable 17 361 tonnes of material that was reused in other of the City's operations and hence did not need to go to landfill. This, together with an 'in-house' office recycling program where all paper and cardboard is recycled and staff food scraps are composted means that minimal waste material from the City's operations is directed to landfill.

Reduction of Greenhouse Gas Emissions

The Greenhouse Effect is no myth and it will take a coordinated global response supported by actions at the local level to develop truly sustainable energy systems to reverse the effect.

The City of Ryde in acknowledging this local responsibility recently adopted the Energy Smart Water Wise Development Control Plan No. 45 which now requires specific energy efficient controls for all types of buildings. The uptake of this DCP is being monitored through the development consent process and early signs are that it is being well received. These requirements will complement the planned Macquarie Park Corridor Project, which will be looking to encourage businesses to develop workplace travel plans, encourage cycling, walking and greater use of public transport.

Caring for Human Health and the Environment

Over the past year, the City of Ryde has been very active in ensuring the health and safety of the local community against public health impacts. For instance, this year over 218 health complaints were dealt with by City of Ryde staff to safeguard the local environment. Over 487 food businesses were checked to ensure adequate food hygiene and storage practices and over 65 premises registered for skin penetration procedures were checked for adequate infection control. All 20 public swimming pools in the City were checked for adequate disinfecting control procedures and the City's Mosquito Control Program where traps were placed at 6 regular sites and 11 other sites were monitored for breeding activity was completed. Also, over 5 090 vaccinations were given, as part of the City's immunisation service, at the City's clinics.

Community Stormwater Pollution Education and Pollution Control Devices

The City's coordination of stormwater pollution education was enhanced through the formation of a cross divisional Environmental Education Team. The team was involved in 'in house' campaigns concerning littering of plastic items and cigarette butts, as a threat to fauna in conjunction with Clean Up Australia Day. The City joined the former Environment Protection Authority's (now the Department of Environment and Conservation) 'Don't be a Tosser' campaign and was actively involved in the campaign against cigarette butt littering. Talks were given at local schools and displays were shown at the Granny Smith Festival and the Field of Mars Reserve Open Day.

Several significant structural work activities were also completed to protect water quality in local waterways. For example, pollution control devices were constructed at Maze Park, West Ryde and at Brush Farm Park, Eastwood to control stormwater pollution. Creek rehabilitation and associated bank stabilising work also continued at Maze Park Creek, Miriam Creek, Darvall Park, Martins Creek, Shrimptons Creek and Barton Reserve. This work served to improve the quality of waters flowing into the waterways and minimise the amount of sediment entering the waterways.

A Water Monitoring Strategy to measure the health of our waterways both from a chemical and biological perspective is being developed and this will be one of the mechanisms used to determine the health of our waterways and effectiveness of ongoing programs implemented by the City. Early visual indications are that improvements are having a positive influence on our waterways.

Fire Control Management Program

The NSW Fire Brigade conducted 17 ecological/hazard reduction burns at various parks in Ryde. These burns were completed in close liaison with the City of Ryde. A firebreak roster was developed by the City to precisely determine the maintenance schedule frequency of various fire breaks across the City to minimise the risk of any fire spreading uncontrolled. A community fire trailer unit at Busaco Parade, Marsfield, was also installed to assist local residents to stabilise any outbreak of fire activity until the NSW Fire Brigade reaches the fire.

Bushcare and Tree Management Program

Over 25 bushland parks received professional bush regeneration contract work and care from volunteer bushcare teams under the City's guidance. These teams play a key role in helping to restore the City's bushland with over 9 400 hours of paid bush regeneration hours. There are now over 115 individual volunteers in 15 groups undertaking bush regeneration work. The work these teams perform include such things as weed removal and control, flora and fauna management, site assessment, seed collection and revegetation programs to name a few.

A bushcare trailer with signage applied was recently completed and this was donated by Compuware Asia-Pacific Pty Ltd in recognition of the important

bushcare work undertaken by volunteers to conserve and enhance our precious bushland. This trailer was much needed and will be put to good use. Over 526 street trees were planted in 18 separate streets and over 9 500 trees were planted in parks under the City's capital works projects and community planting initiatives. The Greening of Ryde taskforce was particularly active with tree planting work at Pioneer Park, Epping Road/Vimiera Road, River to River project, Mallee Reserve and other street planting projects, which were unfortunately, limited by the drought conditions.

Transport Initiatives and Road Safety

As part of the 50kmph urban speed limit and 'Slow Down in Ryde' Project, the City adopted the 50kmph general urban speed limit in its entire area, including all collector roads but excluding the industrial precinct in North Ryde. Additional signs are being installed on collector roads to make drivers more aware of the lower speed limit. This improves safety and traffic flow. Cycling in Ryde is also being heavily promoted with new bikeways being completed at Talavera Road and at Shrimptons Creek and local planning laws being changed to incorporate requirements for showers and bicycle lockers to promote more cycling activity.

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Introduction



This report has again been prepared as a supplementary report covering the period 1 July 2002 to 30 June 2003 to satisfy the minimum requirements of Clauses 7E and 7F of the Local Government (General) Regulation 1993.

This report provides the community of Ryde with updated information about the state of the local environment and the environmental initiatives undertaken since the 2001/02 State of the Environment (SoE) report. It should be read in conjunction with last year's report as both these reports will serve as building blocks to enable next years comprehensive SoE report to be completed.

The report highlights the many ways the City of Ryde is working to ensure the local environment is protected from threats and demonstrates how the City is applying the principle of ecologically sustainable development in all local area decision making.

As in previous years the City of Ryde utilises the OECD's State-Pressure-Response Model and concludes with future actions and links to the City's Management Plan for each of the environmental themes covered in the report namely:

- Towards Environmental Sustainability
- Human Settlement
- Bushland and Biodiversity
- Water
- Air
- Soil and Landscape

The information contained in this report is from a number of sources but is primarily data held within the City of Ryde files, published documents and other data made available by the Environmental Protection Authority (EPA).

A handwritten signature in black ink that reads "Edna Wilde". The signature is fluid and cursive.

Councillor Edna Wilde OAM
Mayor of the City of Ryde

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Chapter 1 - Towards Environmental Sustainability



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1.1 Community Action

The environmental planning towards sustainability in City of Ryde was enhanced through conducting community consultations, and also by the formation of a special Environmental Education Team within the organisation to interact with staff and the local community on particular environmental initiatives.

The community in the City of Ryde is actively involved in various environmental protection and monitoring initiatives. Community groups including local historical societies, environmental groups, Bushcare volunteers and the Community Environmental Management Strategies Group are active in our local area in varying degrees.

The City is now one step closer to finding out what priorities residents have for the City of Ryde in 20 years time. The City Vision 2022 community consultation program was completed through a mail out survey of 1 400 households and subsequent workshops. Overwhelmingly our community see a vision for the City of Ryde in 2022 to be safe, clean and green.

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

*This list does not include all bushcare groups.

Supporting Volunteer Groups

The City of Ryde supports volunteer groups by providing them with resources and training, 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.



The Greening of Ryde Taskforce

The Greening of Ryde Taskforce has continued with numerous revegetation and street tree projects in the past 12 months including:

- Pioneer Park - National Tree Day 2002 - 250 resident volunteers - 500 seedlings.
- Epping Road/Vimiera Road - 2000 local indigenous seedlings planted in the site adjacent to Epping Boys High School by Year 7 students from the school and local volunteers. Sponsorship of the seedlings came from a Sydney Harbour Catchment Management Grant (\$5 000) and Osmocote (\$2 000).
- River to River Project - the Taskforce is creating a vegetation corridor from the Parramatta River to Lane Cove River through the heart of the City. The corridor will run from Morrison Bay Park, through Bremner Park, Mallee Reserve, Olympic Park, Holy Cross College and onto the Field of Mars Reserve. An Envirofund Grant was received from the Natural Heritage Trust (\$10 000) for the propagation of 6 000 local indigenous seedlings. Approximately 3 000 of these have already been planted in Morrison Bay Park, Bremner Park and Mallee Reserve.
- Mallee Reserve - this project has been going since 1996. Weed removal and revegetation by the Taskforce and bush regeneration contractor is continuing.
- Street Tree Planting projects were limited by prevailing drought conditions but projects were carried out in Storey Street, Putney; Culgoa Avenue, Eastwood; Graham Avenue, Eastwood; Stratford Avenue, Denistone and Deborah Place, Eastwood.

The Taskforce also continued to supply trees, seedlings and mulch to local schools on request.



Bushcare Volunteer Program

Bushcare volunteers play a vital role in helping to restore the City's bushland. Some of the key work completed by the Bushcare Program includes:

- Ongoing maintenance of a database of 115 individuals in 15 groups.
- Construction of a bushcare trailer with signage applied. The trailer is a donation from Compuware Asia – Pacific Pty Ltd.
- Development of a Bushcare Policies and Procedures Manual outlining what Bushcare is and related Occupational Health and Safety issues associated with bushcare work undertaken.
- Award of an Envirofund grant for the end of Monash Road – Field of Mars (\$10 000 is being administered).
- Development of Bushcare site signs to distinguish and promote Bushcare sites. The signage allows workdays and times to be displayed and updated.

Bushcare Volunteer and Greening of Ryde Taskforce Christmas Party was given by Council to thank the volunteers for their work.



Work Undertaken by Bushcare Groups

Bushcare volunteers have undertaken numerous works including:

- weed removal and control
- track maintenance and construction
- fauna and flora management
- site assessment
- planning and monitoring
- seed collection
- revegetation programs

Local companies and schools involved:

- Biochemie Australia
- Omron Electronics
- Ryde Secondary College
- St Ignatius College

Community Environmental Management Strategies Group

The Community Environmental Management Strategies Group was created in 1998 in order to facilitate community consultation and assist in the development of City of Ryde Environmental Management Strategies. The group is facilitated by the City and had input in reviewing the City's State of the Environment Reporting process and other environmental monitoring initiatives. Five members of the community with environmental knowledge make up the group. The group met once during the period of this report to discuss last year's SoE Report and

the indicators that were reported on. For varying reasons, the Group has not met since and will need to be revitalised.

City Vision and Strategy

Over the past year, the City of Ryde has been planning for the future of our City. An extensive participatory community consultation program of people who live and work in the City of Ryde was undertaken during the period of this report to help decide what the City should be in 20 years time. The City Vision Project should be finalised during the next SoE reporting period and a City Strategy will then need to follow to provide the necessary direction for achieving the City Vision. Preliminary findings show that our community has a vision for the City of Ryde in 2022 to be safe, clean and green.

Environmental Education

The City of Ryde aims to lead by example with regard to environmental education. Efforts aimed at educating about sustainability are being coordinated through the formation of a cross-divisional Environmental Education Team. The Enviro Ed Team consists of 7 members representing six sections of the organisation. The purpose of the Team is to exchange ideas on how to incorporate sustainability into the organisation's daily activities. Monthly promotions often coincide with National or State environmental themes. Over the past year the following facets of the City's environmental education program included:

- Conducting in-house education program including water use and energy efficiency, waste minimisation, littering and protection of biodiversity.
- Streamlining distribution of educational material to libraries and the City's buildings.
- Conducting waste and recycling audits at schools involved in Clean Up Australia Day.
- Conducting talks about water quality, waste and biodiversity at Denistone East Public School on their Environment Day.
- Hosting an Energy Efficiency Renovators Workshop during Solar Month.
- Holding displays in libraries and shopping centres on mosquitoes, energy, and recycling.
- Holding an environment stall at the Granny Smith Festival and Field of Mars Open Day.
- Establishing new environmental signage along bush trails at Brush Farm, Burrows and Glades Bay Parks and at Field of Mars.

- Placing environmental interest articles in Ryde City News and local newspapers.

Environment Strategy

Next year the community will be asked to be involved in developing environmental priorities and strategies as part of the City Vision process. At this stage it is anticipated that local environmental programs will be coordinated under a Local Agenda 21 Plan.

Future Actions

- Continue to foster and support community involvement in as many local environmental programs as possible to protect and conserve the local environment and to develop community ownership.

Management Plan 2002- 2003 Progress Summary – Towards Sustainability

Objective	Strategy	Measures/Targets	Progress
Implement the principles of ecologically sustainable development (ESD) within the operations of the City.		Develop draft city wide environmental strategy.	Awaiting completion of City Vision 2022 Project in October 2003. Environmental Strategies and Policy to be developed next year in conjunction with City Vision Strategies.
Monitor the environment.	Identify KPIs for Ryde's environment. Report on KPIs.	KPIs prepared by 30 September 2002. Three (3) measurements put in place by 31 December 2002. Quarterly reports prepared for the Executive Team.	Completed and were included in SoE Reporting. Completed. Over 20 indicators now reported in SoE Report. As a majority of KPIs are only available annually, reporting will be annually through the SoE Reporting Process.

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Chapter 2 – Human Settlement



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2.1 Urban Development

The City of Ryde's natural and urban environment contributes to making it an attractive destination. However, continual urbanisation and previous poor land management practices have led to extensive land degradation.

In response, the City is continually developing and implementing strategies to improve the current and future state of Ryde's land and environment.

Goal

To address current pressures and to minimise future impacts on land and the environment resulting from the continual increases in urbanisation and previous poor land management practices.

State

The number of development applications determined rose, with some 1431 applications received in 2002/03. The majority of applications related to residential housing but there has also been a continuing interest in commercial and retail development.

Summary of Development Applications Approved in 2002/2003

<i>Development Type</i>	<i>No. of Development Applications Approved</i>
Commercial	59
Industrial	18
Retail	79
Warehouses	4
Residential Flat Buildings	20
Dwelling House	663
Duplex	25
Villas	42
SEPP 5	5
Car Parks	4
Education Centres	16
Place of Worship	4
Demolitions	136
Outbuildings	54
Subdivisions	60
Swimming Pools	84
Advertising signs	20
Miscellaneous	45
Total	1308

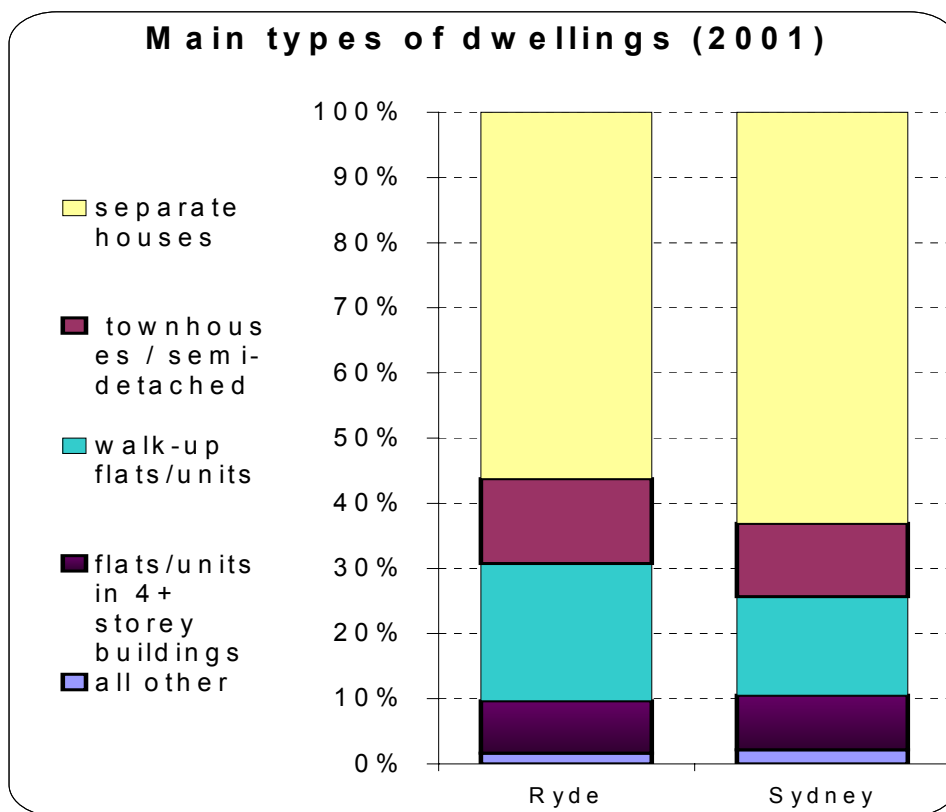
Population and People per Dwelling

On Census night, 7 August 2001, Ryde had a population of 95 744 people. This was an increase of 3 069 since 1996. Ryde's annual growth rate over 1996-2001 was 0.7% a year, similar to Sydney's 1.3% (Source ABS 2001). Based on these figures it is estimated that Ryde currently has a population of approximately 98 900.

Dwelling Type Breakdown

In mid-2001, Ryde had 38 833 dwellings, an increase of 1 636 since 1996. The most common dwellings in Ryde are separate houses, of which there were 20 695 in 2001 (53% of Ryde's dwellings compared with 59% over Sydney). Other common types of dwellings are attached houses such as town houses or terraces/villas (4 792 or 12%); units or flats in low-rise buildings (7 753 or 20%); units/flats in buildings over three storeys (2 968 or 8%); with 123 all other (0.3%) (Source ABS 2001).

The most commonly built type of dwelling over the period 1996-2001 were walk-up flats/units, representing an increase of 151% (Source ABS 2001).

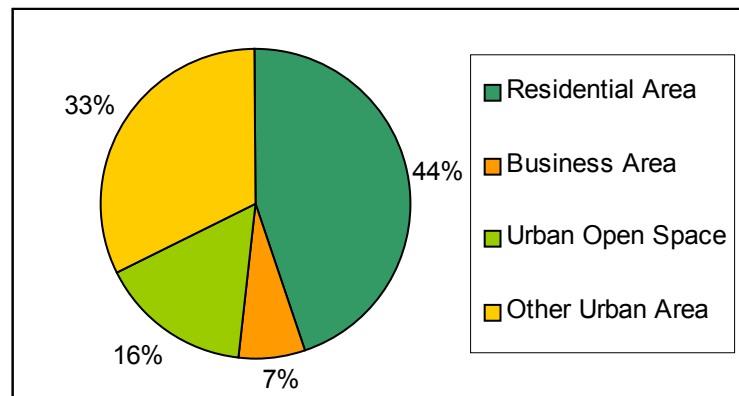


(Source ABS 2001)

Land Use Breakdown

The following table and graph breaks down the land use in the City of Ryde into four broad categories. The information is based on 2002/03 figures with land use expressed as a percentage of the total land in the City of Ryde.

Land Use in the City of Ryde 2002/2003	
Residential Area	1813.73 (44.6%)
Business Area (ha)	290.19 (7.1%)
Urban Open Space (ha)	641.30 (15.8%)
Other Urban Area* (ha)	1319.93 (32.5%)
Total Urban Area (ha)	4065.15 (100%)



Note: Other Urban Area pertains to zonings such as special uses that include universities schools, hospitals and churches.

Land Use in the City of Ryde 2002/2003

Pressures

- The City of Ryde currently has 37 772 ratepayers and is experiencing a steady change in population structure, growth and composition. It has remained the objective of the New South Wales State Government to address the issues of population growth, equitable access to infrastructure and a safe and healthy environment, primarily through urban consolidation. As a result, urban consolidation continues to be the main pressure on Ryde's natural and urban environment.
- The success of all Ryde's employment areas continues to drive commercial and industrial development, which is a significant cause of pressure on infrastructure and services. For example, the Macquarie Park Corridor has in excess of 28 000 employees.

Response

- Strategic planning seeks to deal pro-actively with the environmental and social impacts of development by:
 - Implementing policies that ensure land-use is environmentally and economically sustainable
 - Actively involving the community in the planning process
 - Continually updating the City of Ryde's website with all codes, policies, DCPs and the Ryde Planning Scheme Ordinance
 - Building a sense of community and identity with a focus on strengthening the relationship between people and their environment
 - Developing a City Vision and comprehensive planning controls such as Draft Ryde Local Environmental Plan 2002 – For Now and the Future that will consolidate Ryde's planning documents and create a broad framework for all future development in the City of Ryde.

Current Projects

- Eastwood Urban Village LEP No.110 and DCP No.39 are awaiting the approval from the Minister for Infrastructure and Planning. The LEP includes a raft of planning controls that seek to reduce the impact of development through the integration of land use and transport whilst providing a high quality space designed for living, working, commerce and culture.
- Top Ryde Urban Village LEP No.123 will be revised pending the findings of a traffic study from the Roads and Traffic Authority.
- LEP No.129 - Urban Housing is presently waiting for approval from the Minister for Infrastructure and Planning. DCP No.21A - Urban Housing was adopted in December 2002. The DCP aims to meet the changing housing needs of a growing and demographically diverse population. Sustainable development is promoted in the DCP through controls relating to site coverage, building footprints and through identifying environmentally sensitive areas not suitable for intensified residential development.
- Following the adoption of the Structure Plan and TMAP for the Macquarie Park Corridor in December 2002 a draft Masterplan was developed and adopted by Council in June 2003. The draft Masterplan aims to implement the strategic objectives of integrating land use and transport, reducing car dependency and creating opportunities for employment in areas supported by public transport.
- Parramatta Rail Link commenced the construction of a new train line, which upon completion will link North Ryde to Epping, Chatswood and the Sydney

CBD. The train line will have three new stations in the Macquarie Park Corridor. The City has taken an active role in monitoring the construction process and continues to work closely with Parramatta Rail Link to ensure that City of Ryde's natural environment is not degraded.

- Draft Ryde Local Environmental Plan 2002 – For Now and the Future is being reviewed to address issues raised by State agencies and the Department of Infrastructure, Planning and Natural Resources. LEP 2002 will be used to manage, develop and conserve the City of Ryde's natural and man made resources.
- The City Vision strategic plan is a new citywide planning initiative that will provide a framework for deciding City progress, priorities and actions over the next 20 years. The City Vision strategy will include directions on a range of topics including transportation, arts, housing and the community.
- DCP No. 29A - Car parking was adopted. The DCP was developed to ensure a high level of environmental quality for car parking areas and provide for adequate traffic safety and management.
- DCP No. 37 - Access for People with Disabilities was adopted. The DCP provides guidance to the requirements for access by people with disabilities to and within buildings, the streetscape and open areas in the City of Ryde.
- DCP No. 45 - Energy Smart Water Wise was adopted on 18 December 2002. This DCP introduces a minimum energy performance for all building works and seeks to reduce the consumption of energy and water. All new homes are now achieving 3.5 Stars on the National House Energy Rating System. Hot water systems that achieve a 3.5 Star Greenhouse rating are now being installed in residential development and solar access and orientation continues to be a primary consideration in all of the City's controls.
- DCP No. 48 - Installation of Satellite Dishes and MDS - Microwave Antennae was adopted. The DCP ensure that any satellite receiving dish or MDS Microwave antennae does not detrimentally affect the amenity of an area or intrude upon the streetscape.
- DCP No's .44 - 55, 55a, 57 and 59 Linton Ave and 891-897 Victoria Road, West Ryde and DCP No.26b - 1-13 Pennant Avenue, Denistone were adopted. Both are site specific DCPs that incorporate the principles of Ecologically Sustainable Development (ESD).
- Planning studies and community consultation has been undertaken for the preparation of the Draft Masterplan for Gladesville Town Centre.
- Work has continued on the revision of the Meadowbank Masterplan, Development Control Plan and Section 94 Contributions Plan.

- A review of the City's Draft Exempt and Complying LEP and DCP is currently being undertaken.
- A number of Character Areas and Heritage Studies have been undertaken. As a result of this work three draft DCPs have been placed on exhibition for the areas Miriam Road at Eastwood, Tyrell Street at Gladesville and Coronation/Trelawney Street at Eastwood.
- A review of the residential development strategy is underway. Research into opportunities for new housing types within the City of Ryde is continuing.

Future Actions

- Exhibition of a draft LEP, DCP and Section 94 Plan for Macquarie Park Corridor. The draft documents will seek to both implement the principles of the Masterplan and introduce a raft of new ESD building principles.
- Continue with the strategic initiative of the Urban Village program by preparing a draft LEP and DCP for Gladesville Town Centre.
- Continued review of the City's Section 94 Contribution Plan.
- Review of the Dwelling House and Duplex Development Control Plan.
- New landscaping control for all future developments.
- Mapping of areas that are bushfire prone or subject to slope instability.

Management Plan 2002/03 Progress Summary – Urban Development

Objective	Strategy	Measures/Targets	Progress
Review the residential development strategy.	Ensure that residential planning controls are site and area specific.	Area specific draft DCPs developed for 3 areas by June 2003.	Draft Development Control plans were prepared for the areas – Miriam Road, Eastwood, Coronation Ave/Trelawney Street, Eastwood and Tyrell Street, Gladesville.
Create integrated policies for areas identified for renewal.	Prepare Masterplan for Gladesville. Complete planning instruments and strategies for Eastwood. Complete planning instruments for Top Ryde.	Draft Masterplan for Gladesville referred to Council. LEP and DCP for Eastwood gazetted. LEP and DCP for Top Ryde gazetted.	Consultation commenced and it is anticipated that draft Master Plan for Gladesville be presented to Council in October 2003. LEP and DCP for Eastwood prepared and awaiting Ministers approval. Awaiting Traffic Study.
Importance of North Ryde as an employment area protected and long term viability ensured.	Work with the State Government in the Living Centres Program.	Draft planning instruments referred to Council.	Master plan prepared and adopted by Council.

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2.2 Heritage

Heritage involves places and landscapes of historic, cultural, social, spiritual, archaeological, architectural or aesthetic significance.

We protect our heritage for many reasons including aesthetics and because it maintains our links with the past

Goal

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

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.

Ryde's heritage is protected at a local level by Ryde Planning Scheme Ordinance which currently protects over 174 heritage items.



<i>Reporting Period</i>	<i>Total No of Heritage Items</i>	<i>Total No in Conservation Areas</i>
1999/00	4	0
2000/01	4	0
2001/02	4 (174 proposed)	15 (proposed)
2002/03	174	4*

*variation due to reduction in conservation areas

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

Pressure

- 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 Local Environment Plan (LEP) No. 105. The LEP protects 174 individual items and four heritage conservation areas. Individual heritage items that are protected include aboriginal sites, schools, churches, clock tower, fountains, factories, shops and houses. The LEP was gazetted on 17 January 2003.
- The City employs a part time Heritage Officer. This role includes assessing development applications for items listed in Local Environmental Plan 105, or for properties in the vicinity of heritage items. Assistance to applicants that have properties that are heritage items, or potential heritage items, is provided through prelodgment advice from the City's Heritage Officer.
- The City has continued to support community heritage groups by providing accommodation for their headquarters and meetings.
- The City has a Heritage Advisory Committee, which has a membership comprising councillors, representatives from local historical groups and interested residents. This committee provides ongoing advice and direction to assist in conserving the heritage of the City. One example of the work this committee did was to prepare the Community Inventory, which is a listing of sites, buildings and features that are of significance and worthy of exploring in order to ensure their protection and conservation.

- The City also works to protect its own heritage properties by:
 - The preparation of the conservation management plan for Rockend Cottage is being developed with the Department of Infrastructure Planning and Natural Resources.
 - The preparation of the conservation management plan for Brush Farm House is being developed with the Department of Corrective Services.
- Minor works to the Willandra have been undertaken. Further works to the property, including landscaping are yet to be undertaken.
- Restoration works to the Parsonage have been completed. Landscaping to link the Parsonage and Westward Cottage have also been finished.

Future Actions

- Preparation of a Heritage Development Control Plan.
- Continued support of Community Heritage Groups.
- Continuation to seek advice from the community on heritage matters.
- Compile a Community Heritage Inventory and research items to determine their level of significance and need for protection.

Aboriginal Heritage

State

There are currently 62 recorded Aboriginal Sites in the City on land under the jurisdiction of the Council. There are approximately another 40 recognised Aboriginal sites within Lane Cove National Park. These sites include axe grinding grooves, engravings, middens and paintings. It is understood that throughout the Lane Cove Valley that there may be further Aboriginal cultural heritage items.

The City's role in Aboriginal heritage includes:

- Implementing heritage legislation at the local government level by ensuring local planning and development controls are sensitive to cultural heritage.
- Conserving places of heritage significance which are located on land owned or managed by City of Ryde.
- Providing opportunities for public involvement in the conservation of cultural heritage, encouraging public heritage awareness and sensitivity, and initiating heritage education programs.

- The Wallumedegal clan of the Dharug tribe formally occupied Ryde. Aboriginal sites in Ryde are predominantly located around the foreshores of the Parramatta River and Lane Cove River.

Pressures

- Being able to integrate Aboriginal site data with planning information held by the City where development applications occur near Aboriginal sites.
- No recognised forum for the various Aboriginal and non-Aboriginal groups in Ryde to establish and implement coordinated heritage programs.
- Incidence of vandalism.
- Possible damage to sites when works are undertaken in the vicinity of the site, due to lack of knowledge of site locations.
- Limited grant funding is available to better manage the Aboriginal sites in City of Ryde.
- Erosion damage of engravings.

Response

- Glades Bay Aboriginal Heritage Walk has been built and the detailed signage has been in progress over the last twelve months. After further detailed consultation with both the Metropolitan Local Aboriginal Land Council and local Aboriginal expert David Rose, the signage has been completed. The signage is in the final stage of production and due for installation in September 2003. This will then complete Stage Two of the project. Stage three of the project may involve an aluminum walkway on the foreshore to link Glades Bay Park with Bill Mitchell Park.
- Aboriginal Sites Officer Alan Madden from the Metropolitan Local Aboriginal Land Council and National Parks and Wildlife Service is assisting City of Ryde in the investigation of a possible Aboriginal Site located in Meadowbank Park. This will be reported next year.
- City staff refers to the Heritage LEP 105 and the Aboriginal Sites register when assessing development applications. Ongoing work is being undertaken to refine the Aboriginal Sites register and the development application process.
- The Bennelong and Surrounds Residents For Reconciliation Group is an independent group which is active in the Ryde and Hunters Hill areas and they have delivered several educational talks and set up information displays throughout the year for the benefit of local communities and schools on reconciliation activities. For more information about the work of this group, contact the City's Urban Landscape Section.

Future Actions

- Complete the Indigenous Peoples Needs Paper for the Social Plan by November 2005.
- Review the Aboriginal Heritage items incorporated on the Heritage LEP 105.
- Adopt the Northern Sydney Aboriginal Heritage Plan.

Management Plan 2002/03 Progress Summary – Heritage

Objective	Strategy	Measures/Targets	Progress
To preserve the heritage of the built environment.		Funding for the restoration or conservation of Brush Farm House obtained.	Department of Corrective Services are reconsidering the restoration project.
Complete Aboriginal Heritage Walkway Stage 2.	Erect signage. Opening ceremony.	Signs to be erected October 2003. Report to Council Opening Ceremony invitation list.	Site meeting for signage layout held. Planning for Opening Ceremony scheduled November 2003.
Plan the Aboriginal Heritage Walkway Stage 3.	Further liaison with Waterway Authority. Apply for grant funding.	Waterway approval for design works. Suitable grant funding sources located.	Design scheduled for approval March 2004. Plans in place to place grant application by March 2004.

2.3 Waste Management

Waste is a product of our industrialised, throwaway society and has been recognised by all levels of Government and communities as a growing problem. Landfill sites continue to fill at an alarming rate and this is causing numerous environmental problems.

The most appropriate way to achieve a reduction of waste going to landfill is to avoid generating the waste in the first place. We all need to follow the principles of 'Reduce, Reuse and Recycle' and be responsible for the waste we are creating.

Goal

To educate residents and businesses to reduce waste going to landfill and develop resource recovery programs.

To minimise the amount of waste going to landfill.

State

As standards of living improve, we are encouraged to consume more goods and materials. As a result, waste is becoming a greater problem with packaging being a major contributor, as well as the shorter life span of larger household items.

The City of Ryde encourages residents to reduce their waste by offering a comprehensive recycling service, as well as promoting composting by providing compost and worm farms at cost price. The household cleanup also encourages residents to separate their greenwaste and metals for recycling.

Waste Service NSW Chullora Materials Recovery Facility continues to accept The City's recyclables for sorting. Items accepted include glass, PET and HDPE bottles, aluminium and steel cans, milk and juice cartons, clean paper, newspaper, magazines and cardboard.

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

In 2003 Resource NSW developed a Waste Avoidance and Resource Recovery Strategy to assist and support Local Government Council's in implementing waste minimisation and recovery programs within their region.

Pressures

- Increased consumption of materials due to improved quality of life has created more waste.

- Increased costs of waste disposal and diminished landfill space.
- Decreased natural resources available and cost associated with production of new products.
- Littering and illegal dumping.
- Greater awareness of environmental effects of landfilling.

Response

Domestic Garbage

Approximately 36 310 residences received a weekly garbage service and a 20 week household cleanup collection cycle. In 2002/03 a total of 29 583 tonnes of solid waste was removed (average of 815 per household). This is a reduction of 1717 tonnes from last year's figures and is an encouraging result.

Total Waste Tonnages

<i>Period</i>	<i>Tonnages (per annum)</i>	<i>Kgs Per Household</i>
July 1994 - June 1995	31 759	945
July 1995 - June 1996	31 139	895
July 1996 - June 1997	29 547	832
July 1997 - June 1998	30 164	846
July 1998 - June 1999	32 145	892
July 1999 - June 2000	33 093	914
July 2000 - June 2001	31 585	910
July 2001- June 2002	31 300	892
July 2002 - June 2003	29 583	815

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

The City of Ryde's domestic waste is currently being disposed of through Waste Service NSW at the Eastern Creek Landfill site. However, due to a number of alternate disposal sites becoming available, Ryde, in association with the NSROC group are in the process of drafting an Expression of Interest for a Waste Disposal Contract. The Collex Bio-reactor at Woodlawn is still not functional as it is awaiting the State Government's approval of the Clyde Rail Link site, which needs to be built prior to becoming functional.

Recycling Service

The City of Ryde offers residents a fortnightly recycling collection in a divided 240l mobile bin. Approximately 80-90% of residents continued to use the recycling service, which accepts glass, PET and HDPE bottles, steel and aluminium cans, milk and juice cartons, cardboard, newspaper, magazines and clean paper. A total of 8,639 tonnes of recyclables were collected from 37 310 bins during 2002/03. This is an increase of 573.81 tonnes from last year's figures, which is an encouraging result. In addition, residents can take excess

recyclables to the Waste Management Centre, North Ryde, which is managed by Waste Service NSW.

The City's metal and greenwaste collection incorporated with the household cleanup has assisted in increasing the recycling tonnages.

Recycling Tonnages

<i>Period</i>	<i>Garbage Tonnages</i>	<i>Recycling Tonnages</i>	<i>Percentage of Waste Recycled</i>
July 1994 - June 1995	32 880	3 904.47	10.91
July 1995 - June 1996	31 139	5 395.24	14.77
July 1996 - June 1997	29 546	7 459.97	20.16
July 1997 - June 1998	30 164	7 947.50	20.85
July 1998 - June 1999	32 127	7 917.29	19.77
July 1999 - June 2000	33 093	8 105.98	19.67
July 2000 - June 2001	31 585	8 066.00	20.34
July 2001- June 2002	31 301	8 065.43	20.49
July 2002 - June 2003	29 583	8 639.24	22.64

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

Porters Creek Recycling

The recycling of construction and demolition waste from the City's public works road and drainage construction projects continued during 2002/2003. Materials are stock piled for crushing and reuse at Porters Creek Depot saving valuable landfill space and costs for the purchase of new quarry material. There has been a steady growth in the amount being recycled as figures for the last four years indicate and this has a positive impact on the environment.

Tonnages of Material Recycled from the City's Outdoor Operations

<i>Period</i>	<i>Concrete Tonnages</i>	<i>Asphalt Tonnages</i>	<i>Compost Tonnages</i>	<i>Total</i>
1999/2000	4 241	10 347	-	14 588
2000/2001	5 962	9 540	-	15 502
2001/2002	8 075	15 286	561	23 922
2002/2003	6 595	10 494	272	17 361

In addition, the process of rehabilitation of road pavement on the job by cement stabilisation has resulted in 7 800 tonnes of material not being excavated for disposal in landfill during 2002/03. Pavement rehabilitation also reduces the need for further quarry material and haulage, off site processing and is environmentally sustainable.

Garden Waste

The City continues to investigate the feasibility of introducing a separate greenwaste collection due to pressure from community groups. A greenwaste survey will be distributed to all ratepayers with the annual rates, giving all residents the opportunity to give their feedback on their requirements. Concerns which will be raised will be the benefits of reuse, and diversion from landfill as

well as taking into account the establishment of Alternative Waste Technology disposal sites in the future, increased truck movements, additional bins and increase in overall cost.

Waste Education

The City of Ryde conducted a number of displays on recycling, waste minimisation and littering during the year coinciding with events such as the Granny Smith Festival, National Recycling Week and Seniors Week.

A waste education page was added to the City's website, which contains information about general waste and recycling collection guidelines and dates, waste minimisation practices, and upcoming waste education events with a great response from residents using the website.

Waste reduction and recycling activities were undertaken at many schools within the City. The activities varied from information talks at assemblies and World Environment Days, to the establishment of an eco-garden at Ryde Public School, and the publication and distribution of an environmental education newsletter entitled EnviroNews. The City of Ryde also teamed up with the Department of Education's Field of Mars Environmental Education Centre to complete four litter audits as part of the School Environmental Management Plans.

The Waste Collection Calendar distributed to all residents, was a great success as it identified the garbage, recycling and cleanup dates for their area, as well as increasing their awareness of recycling and waste minimisation strategies offered by the City.

The City continued its in-house recycling program with food scraps being composted in the City's wormfarm. The cardboard recycling bale system has continued with an average of 8 bales a month being collected. The City sells compost bins and wormfarms at cost, which helps residents to practice ecological sustainability.

The City of Ryde in conjunction with Collex Waste Management repainted the sides of the recycling trucks showing the division in the trucks and the items accepted in each compartment of the recycling bin.



Commercial Waste

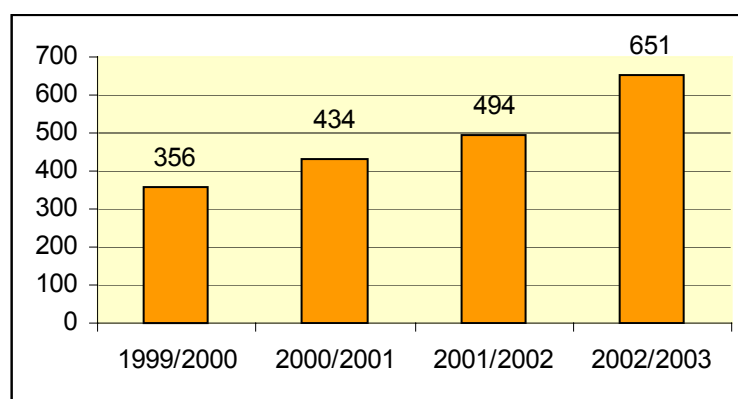
The City of Ryde continued servicing around 1 470 commercial waste bins utilising the new Tiris computer tagging system with a 100% accuracy read. The commercial waste customers are invoiced quarterly in advance, with the correct lift data being adjusted in the following invoice. An average of 80% of these bins are serviced each week with a total of 1 417.52 tonnes of rubbish collected during the 2002/03 year.

Medical Waste Collection

The City of Ryde implemented a Medical Waste Collection Service in 1999, involving twelve local pharmacies. The City of Ryde pays for a locked mobile garbage bin at each location for the disposal of syringes and dialysis tubing. This reduces a large quantity of dangerous items entering landfill. Approximately, 651 kilograms was collected during the year. This was an increase on previous year's totals.

The City of Ryde also promotes the Return Unwanted Medicines Program, which enables residents to take their unwanted pharmaceuticals to any pharmacy across Australia for free collection. These medicines are then disposed of in strictly regulated, safe and environmental way.

Medical Waste Collected



Clean Up Australia Day

The City supervised 20 Cleanup sites with a further 11 schools participating on the Schools Cleanup Day. These sites were aimed around the foreshore and bushland/park areas. A large number of volunteers turned out on the day and about 37 tonnes was collected in "Clean Up Australia" bags and skips placed in various places.



Toxic Chemical Collections

The City in association with Resource NSW, Waste Service NSW and Cleanaway conducted a Household Chemical Collection on 31 May 2003 which encourages residents to dispose of their chemicals in a safe and efficient manner, rather than pouring them down the drain. A total of 263 cars dropped off materials ranging from paints, oils, pesticides, batteries, gas cylinders, fire extinguishers, to household chemical cleaners, acids and hydrocarbons/fuels and even a 500 litre bottle of ethyl dibromide. The collection was very successful with 9.717 tonnes of material being collected and therefore diverted from landfill.

The Waste Management Centre, Wicks Road, North Ryde accepts up to 20 litres of paints and oils, batteries and gas cylinders all year round.



Household Cleanup Service

The City of Ryde increased the Household Cleanup collection to a 20 week rotational service during May 2002. The metal goods and greenwaste are collected separately with the metal goods being taken by Metalcorp for recycling while the greenwaste is processed at Australian Native Landscapes, Eastern Creek. This new service has enabled the City to reduce the waste going to landfill from cleanup as per the below table by up to 401 tonnes which is encouraging.

Household Clean Up

<i>Period</i>	<i>Clean Up Tonnages</i>	<i>Metal Tonnages</i>	<i>Greenwaste Tonnages</i>
1999/2000	2 164	-	-
2000/2001	2 065	-	-
2001/2002	2 090	29	25
2002/2003	1 688	161	333

Littering and Dumping

The City of Ryde Rangers actively enforce littering and illegal dumping. In the past year, 8 clean up notices and 50 infringement notices were issued for littering offences.

In house Recycling and Waste Reduction Programs

The City of Ryde encourages staff to dispose of their paper waste in paper recycling boxes under their desks, which is then disposed of in the paper recycling bins. Larger cardboard items are placed in the Visy cardboard bale system with an average of 7 bales being collected every 3 weeks. A total of approximately 3.5 tonnes of cardboard was collected last year. Recyclable containers are also recycled via the recycling bins located on each floor. Staff food scraps are collected and composted in a worm farm in the basement. The fertiliser liquid and castings are used to fertilise the City's gardens. Staff washrooms continue to use cloth hand towels, which reduces the amount of waste caused by paper towels.

The City of Ryde continues to recycle 100% of excavated materials, such as bitumen and concrete from road works. These materials are reused in the reconstruction and rehabilitation of roads, footpaths and drainage works. The City reused over 17 361 tonnes of material from its outdoor works throughout the year.

Future Actions

- Advertise Expressions of Interest for the Provision of Waste Transfer, Processing and Disposal Services for the NSROC member Councils.
- Formulate data received by the community on the introduction of a greenwaste collection and determine the feasibility of such a service.

- Introduce a separate paper and container collection from units, which will also allow for the availability of paper collection only from schools and commercial properties.
- Continue existing waste management programs.

Management Plan 2002/03 Progress Summary – Waste Management

Objective	Strategy	Measures/Targets	Progress
To minimise waste.	<p>Improve waste disposal and recycling.</p> <p>Reduce waste.</p>	<p>Redevelopment of the Porters Creek site into a Waste Management and Recycling Park be investigated.</p> <p>In partnership with the State Government, minimise the disposal of waste to landfill.</p>	<p>Council has deferred redevelopment of Porters Creek site.</p> <p>Distributed waste calendar to identify collection details and promote recycling.</p> <p>Held recycling displays during National Recycling Week in November.</p> <p>A worm farm demo was held at Ryde Park in March following the City's half price sale of worm farms and compost bins at Xmas.</p> <p>Recycling facilities were provided at public events such as the Granny Smith Festival, Australia Day and Ryde Aquatic festival.</p>
		In association with Collex Waste Management Service, install the Bintrak system.	Bintrak system installed on commercial garbage bins.

Objective	Strategy	Measures/Targets	Progress
Implement the principles of ecologically sustainable development (ESD) within the operations of Council.	Review the operations of Council to determine compliance with ESD principles.	Inclusion of appropriate environmental monitoring in new capital works programs.	The City's EnviroServe Operations Centre recycles and reuses a majority of materials arising from outdoor operations. EnviroServe completes an Environmental Management Plan for each Capital Work Project it undertakes. A voluntary Environmental Audit of the EnviroServe Operations Centre was completed.

2.4 Noise

Noise pollution is defined as “unwanted offensive sounds that unreasonably intrude into our daily activities” (NSW EPA). The degree of impact of noisy activities varies according to the intensity, frequency, duration, time of day the noise occurs and the sensitivity of the recipient.

Noise can cause a range of adverse impacts on people including loss of sleep, hearing problems and stress. These impacts can reduce the enjoyment of life and can have serious long-term consequences.

Noise related problems continue to be a source of irritation to residents as the population of the City of Ryde grows and we are being made to live closer to each other.

Goal

To reduce the number of people that are impacted by excessive noise levels.

State

The majority of noise complaints are barking dogs. Approximately 60 written complaints for barking dogs and over 630 verbal requests for all animal related nuisances were received throughout the 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.

Total Number of Noise Complaints Received

Indicator	1999-2000	2000-2001	2001-2002	2002-2003
Number of noise complaints	146	112	121	105

Note: Barking dogs are not included in these figures although they made up approximately 500 complaints this year. Complaints to the EPA about noise are also not included in the figures.

Noise Complaint Numbers by Type/Source

Type/Source	Number of complaints
Construction - commercial	7
Construction - domestic	2
Activities - commercial	35
Activities - domestic	6
Music - commercial	0
Music - domestic	10
Alarms - commercial	3
Alarms - domestic	2
Alarms - vehicle	3
Air conditioners - commercial	3
Air conditioners - domestic	7
Pool/spa - commercial	0
Pool/spa - domestic	6
Fireworks	1
Animals (excluding dogs)	20
Total	105

Pressure

- Community noise has a variety of sources generated from our day-to-day living activities. These are generally associated with urban development and higher density living. Many of the noises that we generate are often a cause for general concern, and often affect the community's health and well being.
- Noise can also be generated in the City of Ryde from associated infrastructure development (air conditioning for example), existing road, rail and air traffic and the increased use of cars and other domestic activities.
- Noise complaints relating to dogs usually relate to excessive barking caused by the dog's boredom, loneliness, excitement, inadequate shelter or being chained up.

Response

- The City's development assessment process considers the noise impact of developments at the approval stage and applies conditions that mitigate the impact of noise on adjoining receivers.



The City of Ryde normally pursue noise complaints from:

- Road works on non-major roads
- Building construction
- Air Conditioning systems
- Commercial premises
- Animal noise
- Some amplified noise
- Sporting facilities (except boating events)
- Concert facilities
- Some individual motor vehicles
- Intruder alarms in private homes, shops and cars

Future Actions

Continue to deal with noise complaints in a timely manner to reduce impact.

- Review Development Control Plans to ensure any noise generating activities are properly managed at the development construction stage.

Management Plan 2002/03 Progress Summary – Noise

Objective	Strategy	Measures/Targets	Progress
Pollution controlled.	Enforce the Protection of the Environment Operations Act.	Complaints dealt with within 24 hours of receipt. Serve notices.	Completed.

2.5 Open Space

Open space is essential for the general health and vitality of a community through the provision of natural landscape and recreational open space in an urban environment.

The City of Ryde enjoys a high level of open space for its size and population when compared to many other local government areas in Sydney.

Residents consider the high rate of open space as an important reason for living in the City of Ryde and have high expectations that the open space resources are maintained.

There are 3 indicators that demonstrate a healthy open space system. These are number of trees planted, improvement of regional public space facilities and improved carrying capacity of sporting fields.

Number of trees planted

Goal

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

State

Trees and their under-storey 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.

There are now over 65,500 street trees in the City of Ryde and these are protected by a Tree Preservation Order.

Pressures

- Increased development and higher development densities reducing available area for tree cover.
- Inappropriate or ad hoc planting of tree species in the past.
- Removal of trees for legitimate purposes under the Tree Preservation Order reduces the overall canopy cover.
- Pressure on remnant bushland and habitats via pressures of urban development such as altered moisture and nutrient levels and weed invasion.
- Provision of quality of life for residents, including aesthetic values.

Response

- 526 trees planted under the street tree planting program in 18 separate streets.
- 9 500 trees planted in parks via capital works projects and community planting initiatives.
- Tree planting and maintenance specifications developed.
- Local indigenous plants sourced for planting adjacent to remnant bushland areas.

Future Actions

- Continue support for street tree planting program.
- Continue the annual community tree giveaway.
- Investigate feasibility of City run community nursery for growing local species.



Improvement of regional public space facilities

Goal

To provide good quality, safe destination points for family recreation

State

The 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 both the Lane Cove and Parramatta Rivers. The City's Open Space and Recreational Facilities Plan and various specific plans of management guide this network.

Pressures

- Increased development and higher densities placing greater demand for facilities.
- Compliance with relevant standards for safety and construction.
- Risk management.
- Improvement of community health.

Response

- Major upgrades continue at:
 - Shepherds Bay, Meadowbank
 - Anzac Park, West Ryde
 - Yamble Reserve, Ryde



Future Actions

- Continuation of projects in progress into the 2003-04 financial year
- Ongoing asset maintenance carried to the City's program
- Community needs are to be assessed under a Social Plan and City Vision Strategy both in progress

Improved carrying capacity of sporting facilities

Goal

To provide safe and playable venues for organised sport

State

The City manages 145 sporting fields on approximately 58 hectares of land and many fields are nearing maximum capacity with some being overused. The development and management of these fields are guided under the City's Sportsground Plan of Management.

Pressure

- 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.
- Weekend use, daytime hire, night training, summer and winter use of all facilities.

Response

- Sports safety guidelines and checklist are issued to sports clubs and are regularly monitored.
- Renovation of fields and sub-surface drainage was undertaken at:
 - Peel Park, Gladesville
 - Dunbar Park, Marsfield
 - Meadowbank Park No. 11 Field and the sealed netball courts, Meadowbank

- Purchase of winter season cricket wicket covers

Future Actions

- Continue to apply for grant funding for renovation of old facilities.
- Ongoing asset maintenance.

Management Plan 2002/03 Progress Summary - Open Space

Objective	Strategy	Measures/Targets	Progress
Continuation of a comprehensive street tree management program.	Target street tree projects via: Community contact Road reconstruction projects Street Tree Task Force Collector Road Boulevard planting.	Minimum 20 streets planted Planting undertaken during September – October 2002 and March – May 2003.	526 trees planted in 18 streets. Budget expended. Over 9 500 trees and shrubs planted under capital works program and resident tree planting days.
Improvement of regional public space facilities.	Shepherds Bay Stage 5.	Decommissioning of the Parsonage Street Depot.	Decommissioning of Parsonage Street Depot completed.
Improvement of carrying capacity of sports fields.	Peel Park – regrade and drainage.	Design completed by July 2002. Construction completed during December to April 2003.	Project complete.

Objective	Strategy	Measures/Targets	Progress
To improve the quality of open space.	Improve the quality of parks and their usage.	Impetus for improvement of regional public space facilities be maintained.	Regional Open Space improvements are continuing. Completed cycleway linking Blenheim Road to Epping Road Completed barbecue and picnic shelter to regional park at Shepherds Bay, Meadowbank and Stage 6 design in progress. Construction of Yamble Reserve, Ryde nearing completion (due August). Commenced upgrade of Anzac Park, West Ryde in March.
To improve the quality of open space.	Improve the quality of parks and their usage.	Impetus for improvement of the carrying capacity of sports facilities be maintained.	Trial of new water conserving and non-compacting material (Fytofoam) was undertaken at Eastwood Top Oval and was successful. Further tests are now being planned for goal mouth areas of soccer fields. Feasibility and cost implications for more widespread use to be investigated next year.
	Dunbar Park – drainage.	Design completed by April 2003. Construction ongoing.	To be completed in September 2003.

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2.6 Water Conservation

Water is an essential factor in the lifestyle of nations and in Australia we face a major challenge in sharing limited water resources and to overcome deteriorating water quality. The way in which we tackle these water challenges will play an important part in delivering:

- The health of our landscape and environment
- The lifestyle of our community
- The future of our country and planet
- The quality of life of our children's children

Australia is the driest continent on earth (excluding Antarctica), but we are the greatest consumers of water per capita. 70% of our continent is classified as desert or semi-desert, with little or no precipitation. The average annual rainfall in Australia is 469mm per year, well below the global average of 746mm per year.

Our population continues to grow but the availability of more fresh water does not and if we do not cut back our present, wasteful water usage habits we will run out of water in the near future. These are the challenges that deserve our best endeavours.

Goal

To minimise consumption of water in the City of Ryde.

State

Over the last 14 months the level in our water storage has dropped from 82.3% to 56.8% (with a slight rise in May this year due to good rainfall in the catchment).

Households consume 71 percent of Sydney's water supply, with industry using relatively little. In the City of Ryde the average household water use of 278 kilolitres per year for 2002/03 is significantly lower than for the Greater Sydney average of 301 kilolitres. This is an encouraging result.

This ranks Ryde ninth out of 44 local government areas as the lowest average users of water per dwelling. Households in Woollahra with an average water usage for 2002/03 of 409 kilolitres per dwelling is the highest, closely followed by Ku-ring-gai with 402 kilolitres and Hunters Hill with 401 kilolitres (The Sunday Telegraph 31 August 2003).

Nevertheless, the majority of household water use continues to be for gardens and the outdoors, with the next highest use being the toilet, shower and laundry facilities.

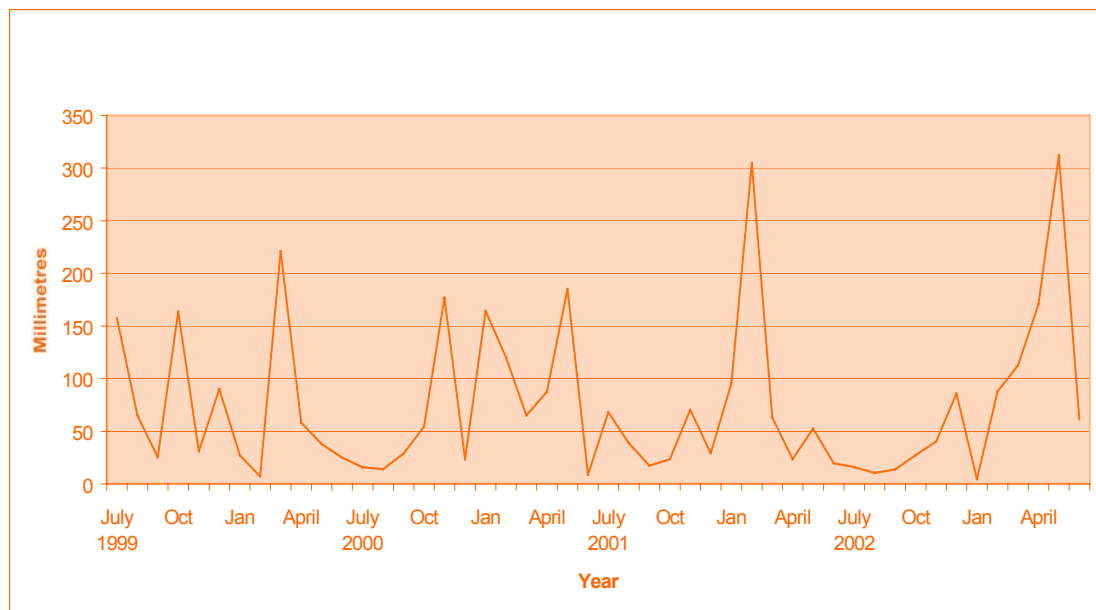
Total Water Consumption for the City of Ryde

Reporting Year	Water Consumption (kilolitres)
2000-2001	134 880
2001-2002	152 656
2002-2003	Figures not yet available from Sydney Water Corporation.

Source: Sydney Water Corporation 2002

The rainfall pattern during the last 2 years in the City of Ryde is tending towards extended periods of low or no rain interrupted by peaks of unusually high rainfall.

Monthly Total Rainfall in Ryde Local Government Area



Source: as monitored by North Ryde Golf Club's weather station

The graph above clearly depicts the near drought like conditions between January 2002 and February 2003 which is a worrying trend and will more than likely lead to mandatory water restrictions across the State if the trend continues.

Pressures

- Gardens not adapted to Australian climate thus requiring lots of water.
- Pricing structure does not 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.
- Low annual rainfall.

Response

- The City has adopted an Energy Smart, Water Wise DCP No. 45. Water conservation requirements in the DCP include AAA rated taps, showerheads, and dual flush toilets. Residential flat buildings, commercial and industrial sites are being required to conduct water efficient landscape assessments. Sites greater than 1 000 m² are required to conduct a comprehensive water cycle assessment demonstrating how demand for water and discharge of waste water will be minimised.
- The Meadowbank Employment Area DCP No. 38, which was adopted in November 2001, and the draft Top Ryde DCP No. 40 include requirements for water conservation, such as water efficient showerheads and dual flush toilets. Both these DCPs 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 No 41, which was adopted in August 2001. Tanks smaller than 10 000 litres are considered to be exempt development.
- The City 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. Also, over the past few years the City has been implementing a program of installing back flow devices on sports field irrigation systems.

Future Actions

- Include water conservation issues in any of the City's environmental education programs.
- Investigate ways the City can incorporate Water Sensitive Urban Design (WSUD) into local area policies and programs. Water Sensitive Urban Design is a new holistic management 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. The City of Ryde intends to further investigate this approach in the near future.
- Consideration to be given to the application of specific WSUD initiatives in new roadway construction such as at the proposed Macquarie Park Corridor to reduce flooding and to maximise reuse of runoff water for areas such as irrigation and toilet flushing.
- Consideration to be given to making the installation of rainwater tanks in all new residential dwelling mandatory.

Management Plan 2002/03 Progress Summary – Water Conservation

Objective	Strategy	Measures/Targets	Progress
To minimise water consumption.	Trial new water conserving practices and still maintain the quality of parks and their usage.	Impetus for improvement of the carrying capacity of sports facilities be maintained.	<p>Trial of new water conserving and non-compacting material (Fytofoam) was undertaken at Eastwood Top Oval and was successful. Further tests are now being planned for goal</p> <p>mouth areas of soccer fields. Feasibility and cost implications for more widespread use to be investigated next year.</p>
Implement the principles of ecologically sustainable development (ESD) within the operations of Council.	Review the operations of Council to determine compliance with ESD principles.	Energy and water efficiency designs in new capital works programs.	Sustainability Building Checklist for Capital Works Program in progress. Also DCP 45 Energy Smart and Water Wise has been adopted. Basic energy and water efficient standards from the DCP are being incorporated into the City's Capital Works Programs.

2.7 Public Health

An important function of the City of Ryde is protecting the health of the public, which is essential for the well-being of the community. The City of Ryde runs specific health protection programs in the areas of mosquito control, food safety, bloodborne diseases, legionnaires disease, vaccinations, public swimming pools and spas and tobacco control.

Public Health Nuisances

Goal

To abate public health nuisances.

State

In the current reporting period the City of Ryde received 218 complaints concerning public health nuisances. These included complaints about sewer overflows, accumulated rubbish, rat infestations, overgrown land and defective roofwater drainage.

Pressure

Public health nuisances may cause annoyance to the public or pose a risk to the health of the community.

Response

- The City's Environmental Health Officers investigate all complaints concerning public health nuisances and took action to abate those nuisances.

Future Action

- Continue to attend to health complaints in a timely manner.

Food Premises

Goal

To ensure that all food businesses comply with the requirements of the relevant food safety standards.

State

In the current reporting period there were 487 food businesses operating in the City of Ryde. Also in this period, the City received 33 complaints concerning local food businesses.

Pressure

- Poor hygiene and food-handling practices may result in contamination of food and foodborne illness.
- 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

- The City's Environmental Health Officers carry out regular inspections of food premises to ensure compliance with the food safety standards. They also investigate complaints concerning food businesses, including suspected cases of food poisoning. A total of 462 inspections were carried out.

Future Actions

- Continue the City's Food Inspection Program.
- Continue to deal with complaints in a timely manner.

Water-Cooling Systems

Goal

To ensure that all water-cooling systems comply with the requirements of the Public Health (Microbial Control) Regulation 2000 to prevent the outbreak 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*.

In the current reporting period there were 194 registered water-cooling systems in the City of Ryde.

Pressure

- Poorly maintained water-cooling systems may allow the growth of *Legionella* bacteria and cause an outbreak of Legionnaires' disease.
- Detecting illegal water cooling systems.

Response

- The City maintains a register of water-cooling systems to facilitate a quick response in the event of a suspected Legionnaires' disease outbreak. Inspections are also carried out of water-cooling systems following complaint or by request from the NSW Health Department to ensure compliance with the regulations.

Future Actions

- Funds have been allocated for the employment of a contractor to inspect all water-cooling systems in the next reporting period.
- Continue to respond to complaints or requests for inspection in a timely manner.

Skin Penetration Premises

Goal

To ensure that all skin penetration premises comply with the requirements of the *Public Health (Skin Penetration) Regulation 2000* so as to prevent the transmission of bloodborne disease.

State

Bloodborne 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 bloodborne disease may also occur through stick injuries caused by inappropriately discarded sharps.

In the current reporting period 65 premises in the City of Ryde were registered to carry out prescribed skin penetration procedures. These procedures included acupuncture, ear piercing, cosmetic tattooing and hair removal.

Pressure

- The use of inadequately sterilised equipment to penetrate the skin may result in the transmission of bloodborne diseases, including HIV and hepatitis C.
- Detecting illegal operations.

Response

- The City maintains a register of skin penetration premises in accordance with the *Public Health (Skin Penetration) Regulation 2000*. The City's Environmental Health Officers also carry out regular inspections of skin penetration premises to ensure compliance with the regulations. A total of 96

inspections were carried out of premises undertaking skin penetration activities.

Future Actions

- Continue the City's inspection program.
- Continue to deal with complaints in a timely manner.

Public Swimming Pools and Spa Pools

Goal

To ensure that all public swimming pools comply with the requirements of the *Public Health (Swimming Pools and Spa Pools) Regulation 2000*.

State

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*.

In the current reporting period there were 20 public swimming pools in the City.

Pressure

- Poorly maintained swimming 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.

Response

- The City's Environmental Health Officers carry out inspections and testing of public swimming pools to ensure compliance with the regulations.



Future Actions

- Continue the City's Swimming Pool Inspection Program.
- Continue to respond to complaints in a timely manner.

Tobacco Smoking

Goal

To prevent the sale of cigarettes to minors.

State

Smoking is a leading cause of lung cancer and death. In addition, studies have shown that the younger a person is when they start smoking, the less likely they are to quit and the higher the risk of smoking related disease. 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.

Pressures

- Under the *Public Health Act 1991*, it is an offence to sell tobacco products to a person under the age of 18 years. However, recent surveys have found that many retailers are ignoring the law.
- Peer pressure and advertising encourages young people to take up smoking.

Response

- In January 2002, an Environmental Health Officer carried out compliance survey of local tobacco retailers, in conjunction with officers from NSW Health, and 30 percent of the retailers surveyed sold cigarettes to minors.
- Warning letters were subsequently sent to the offenders.

Future Action

- Coordinate a follow up compliance survey of local tobacco retailers with NSW Health.

Mosquito Control Program

Goal

To reduce mosquito breeding incidence and nuisance through education, monitoring and treatment.

To monitor health risks in the area by having samples of mosquitoes tested for arbovirus.

State

The local mosquito monitoring and arbovirus program conducted jointly by the City of Ryde, NSW Health, the Sydney Olympic Park Authority (SOPA) and neighbouring Councils was continued this season. Water accumulations on residential properties and in natural areas were surveyed for mosquito breeding regularly or in response to nuisance reports from residents. Treatment with biological larvicide was carried out when necessary.

There were no mosquito samples testing positive for arbovirus throughout NSW this season, although NSW Health did not test coastal collections apart for Sydney.

The City received 34 mosquito-related complaints, from December to April, and this is the second highest number since the record nuisance season 1997/98 when the saline wetlands in Homebush Bay and Silverwater areas were not treated at all till late in the season. Trapping in City of Ryde revealed saltmarsh mosquitoes up to 5 kilometres from the saline foreshores this season, and their presence was also evident during most nuisance investigations.

Pressures

- Residential water accumulations in ponds, swimming pools and receptacles resulting in mosquito breeding is still evident.
- Watercourses are breeding grounds when stagnant and/or natural predators are lacking.
- Complaints about mosquito infestations made by residents.

Response

- The City of Ryde traps at six regular sites to obtain data on population sizes of local mosquito species. The total number trapped during summer was
- 4 259, which is the fifth highest number trapped since the program began over eleven years ago. The breaking of the drought in March is considered to have contributed to the larger mosquito population. SOPA continued to monitor and control mosquitoes breeding in saline environments in Homebush Bay and Silverwater areas from December to March.
- Eleven sites were surveyed for mosquito breeding this season. Only a few of the many watercourses investigated required regular treatment. However, because of the prolonged dry conditions and ponding of watercourses, a somewhat higher than usual amount of 8.1 litres of formulated larvicide was used this season.



- A small residential feedback survey of near-shore households in April found 96% of residents still regarded mosquitoes to be a problem. Fifty-three percent thought the situation had worsened since the previous summer, particularly from March when rainfall recommenced and contributed to increased breeding in saline wetlands, increasing mosquito activity and survival.
- Public education and providing up to date information was continued. This season included comprehensive displays in three libraries and a one-day manned stall at Macquarie Shopping Centre. A number of complainants pointed out that mosquito information on the City's web site was useful and had increased their awareness, urging them to report on nuisance problems or potential breeding sources.

Future Action

- To continue with the City's Mosquito Control Program

Vaccine Preventable Diseases

Vaccination not only protects individuals, but also others in the community by increasing the general level of immunity and minimising the spread of disease. It is important that the public be made aware of the proven effectiveness of immunisation to save lives and prevent serious illness. Health promotion and the prevention of disease and illness is ultimately the most economical form of healthcare.

Goal

To ensure children in the City of Ryde are adequately and efficiently immunised in accordance with NSW Health and the National Health and Medical Research Council (NHMRC) recommendations.

State

Vaccine-preventable diseases are a serious but avoidable risk to human health. Recent data from the Australian Childhood Immunisation Register indicates that 93% of 12 to 15 month old children in the City of Ryde were fully immunised as at 31 March 2003. This is almost a 3 percent increase in the immunisation coverage rate since March 2002.

The City's Immunisation Service continues to be popular with the local community. There are currently over 340 children born in 2002 who registered with the Immunisation Clinic and continue to be "active" clients on our Database.

The immunisation Clinic is staffed by appropriately trained, immunisation accredited registered nurses who are able to carry out vaccination programs which are complementary to those performed by medical practitioners.



Pressures

- Some sectors of society are questioning the health benefits of immunisation thus are avoiding vaccination and potentially putting the population at risk.
- Health expenditure globally has escalated dramatically, and as with all health care services there is pressure to continue to provide an accessible, universal

high quality service at a local level which is adequately resourced and sustainable.

- Funding for the Immunisation clinics is currently provided by reimbursement of nurses' wages to City of Ryde from NSW Health. However the City continues to subsidise the program through salary, administration and accommodation on costs.

Response

- The City of Ryde conducts immunisation clinics twice a month.
- Vaccines currently administered include Diphtheria/Tetanus/Whooping Cough, Oral Sabin for Polio, Haemophilus Influenza, Measles/Mumps/Rubella, Hepatitis B and Meningococcal C from January 2003. Meningococcal C has become part of the new schedule for new babies born from 1 January 2003 and will be given at 12 months of age. This vaccine is also available for all 1-5 year old children and has been implemented into the City's program.
- The campaign to vaccinate 10 year olds for Hepatitis B is still in place as is the Measles/Mumps/Rubella campaign for eighteen to thirty year olds.
- In 2003, Influenza vaccination for seniors was promoted within the area. Many Seniors living in the area received Flu vaccinations at City of Ryde's immunisation clinic.
- More than 5 090 vaccinations were given at the City's clinics during the year.
- The Immunisation Coordinator maintains a computerised record keeping service with appointments letters sent out automatically keeping carers informed of their individual child's schedule.
- Approximately 200 City of Ryde employees also took advantage of the offer of Influenza vaccine this winter through the Immunisation Clinic.

Future Actions

- To continue the City of Ryde's Immunisation programme with the view to maintain and improve the percentage of immunised children in the area to the National Immunisation Strategy's desired 95% by June 2005 and to advocate for an increase in subsidy from the State Government.

Management Plan 2002/03 Progress Summary – Public Health

Objective	Strategy	Measures/Targets	Progress
To improve water quality. To protect public health.	Water quality to be monitored.	Mosquito Control Program be conducted.	Completed to program and final report for period 2002/03 produced.
Food Safety Program conducted.	Maintain register of food premises. Carry out routine inspections. Conduct food handling education course in conjunction with Ryde TAFE.	Register kept All food premises inspected annually. One course conducted targeting new shop operators.	Completed Completed Completed.
Regulated systems registered and monitored.	Maintain register of systems and prevent spread of legionella.	All systems inspected, once a year.	Register kept. Inspections not completed.
Ensure skin penetration premises meet relevant health standards.	Maintain register of premises Carry out inspection of premises.	Register kept and all premises inspected once a year.	Completed.
Ensure public and semi-public swimming pools meet relevant health standards.	Carry out inspection of pools and liaise with other agencies as required.	All pools inspected once a year.	Completed.
Deliver a range of services that promotes the social and cultural well being of individuals and the community.	Provide high quality immunisation services and conduct a review of its operations.	Immunisation service operating to budget and reviewed by March 2003	Immunisation for children held twice a month. Over 5 090 vaccinations administered.

2.8 Social Change

The health and happiness of a community depends on whether a complex mixture of needs is being met. The City of Ryde prides itself on being a safe, thriving, clean, friendly, leafy and pleasant place to live, work and visit. Our population of close to 100 000 people is a diverse and multicultural one and the strength of our communities identification with the City can be influenced by its cultural values, beliefs, customs, symbols, aspirations and expectations. The City contributes to the community well being through its activities.



Goal

To provide strategies, policies and plans and undertake an advocacy role that promotes the social and cultural well being of individuals and the community

State

The residential population for the local government area of Ryde, as at the 2001 Census, was estimated at 95 744 persons, 46 152 males and 49 592 females. Since 1996, the population has grown by 3 069 or 3.2%.

Some 56 200 of Ryde's people (63%) were born in Australia with 37% born overseas. The most common foreign birthplaces in the City of Ryde local government were China with 3 654 people, followed by U.K. with 3 500, Hong Kong with 2 652 and Korea with 2 024 people.

While 66% (59 390) speak only English in their homes, 34% (30 952) speak another language. The most commonly spoken language in 2001 was Cantonese, spoken by 6 048 people (6.7%), followed by Italian (3 319 or 3.7%), then Mandarin, Korean, Armenian, Arabic/ Lebanese and Greek.

Ryde's indigenous population in 2001 was about 227 (207 Aboriginal, 13 Torres Strait Islanders and 7 both).

In Ryde 46% of people are aged 25 – 54 years (prime working age) which is similar to Sydney's population. Ryde's age structure varies most from Sydney in the size of the older persons age group (75+), which makes 7.2% of the population, a 27% larger share of the population than Sydney's 5.6%; and in the mature adults age group (55 – 74), which has a 5% larger share. The age groups that are proportionally smaller than Sydney's are the high school age group (12 – 17) and the primary school age group (5 – 11).

Pressures

- The City of Ryde is an area of rapid ethnicity, demographic change and growing multiculturalism.
- There are many competing needs within the community that need to be balanced in regards to access and equity to services.
- There are limited resources including State and Federal government funding of community services.
- There are local concerns regarding the affordability of housing, safety and the environment.
- The City has aging infrastructure and community facilities.

Response

- Convened the Community Development Support Expenditure Committee and distributed of Community Grants to the community.
- Facilitation and/or resourcing of networks, interagencies and forums that service children, young people, women, older people, people with disabilities, culturally and linguistically diverse people and people from an Aboriginal or Torres Strait Islander background.
- Development and implementation of the City of Ryde Access and Equity Policy. The policy aims to ensure the provision of equitable and accessible services, and the adoption of 'best practice' methods that are inclusive and encourage the participation of residents and visitors regardless of their race, culture, disability, religion, language, age, gender, geographic barriers, social or economic disadvantage.
- Supporting, resourcing and working constructively with local residents, workers, community groups and organisations to enhance their capability for addressing the needs of the community.

- Provision of community facilities to provide community organisations to deliver service to the residents of Ryde.

Future Actions

- To develop and implement the City of Ryde Social Plan 2005
- To conduct social research employing a range of methods to develop a comprehensive social plan
- To develop policies and implement programs in response to identified community needs and to ensure compliance with statutory obligations.
- To advocate for the improvement of services and for those without a voice within the community (inclusive of older people, people with disabilities, young people, children, men, women, people from cultural and linguistically diverse backgrounds, and Aboriginal and Torres Strait Islanders) to ensure they are given appropriate consideration in the delivery of City of Ryde services
- To deliver a range of services that promote the social and cultural well being of individuals and the community

Management Plan 2002/03 Progress Summary – Social Change

Objective	Strategy	Measures/Targets	Progress
To develop policies and implement programs in response to identified community needs and to ensure compliance with statutory obligations.	The development and Implementation of Access and Equity Strategies.	An Access and Equity Policy.	The Access and Equity Policy was adopted in April 2003.

Chapter 3 – Bushland and Biodiversity



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3.1 Bushland Regeneration and Management

Australia is the most biologically diverse developed country in the world. There are roughly 22 000 described species. Australia's flora is amongst the oldest and most unusual on the planet and species of vascular plants in Australia (higher plants, not mosses, fungi etc), 85% of which are found nowhere else.

Some species, like the Wollemi Pine, provide us with a living link with the time of the dinosaurs. Others, like the Banksia are of great commercial importance to the wildflower industry. Still others, like the Tea Trees and Eucalypti, offer important medicinal properties. But most importantly of all, plants form the basis for all other life – maintaining oxygen levels and healthy water tables, providing food for humans and animals alike, and performing countless other vital functions.

Goal

To implement strategic and comprehensive bushland programs that encourage passive recreational opportunities in natural areas in the City of Ryde.

To protect biodiversity through weed management, environmentally sensitive riparian drainage works, bush regeneration and restoration, and fauna management.

State

The City of Ryde's bushland consists of 164 hectares of remnants along riparian corridors that 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 (Casuarina 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 thus affecting remaining bushland usually found in steep riparian gully areas.
- Increased human population density puts pressure on bushland reserve flora and fauna populations.

Response

With the continuous expansion of the Bushcare Program, the Community Noxious Weed Program and the dedicated bush regeneration contract staff, strategic and consistent progress has been made this year in the regeneration and rehabilitation of bushland areas. The volunteer program has rapidly expanded reaching out into the educational, corporate and private sector of the community.

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
2002/03	9 400	287 280

The City's Bushland Teams

This year the following twenty-five bushland parks showing 122.88 hectares received professional bush regeneration contract works in particular areas:

Park/Reserve	(ha)	Park/Reserve	(ha)	Park/Reserve	(ha)
Outlook Park	.063	50 Westminster Road	0.11	Bundara Reserve	0.49
Memorial Park	3.53	Barton Reserve	4.88	Marsfield Park	9.42
Meadowbank Park	1.60	Burrows Park	3.89	Pembroke Park	12.86
Looking Glass Bay Park	2.06	Martins Reserve	1.76	Stewart Park	0.92
Glades Bay Park	3.29	Pryor Park	0.83	Wilga Park	1.84
Field of Mars Res	51.52	Putney Park	4.61	Aitchandar Park	0.56
Denistone Park	5.92	Brush Farm Park	11.0	ELS Hall Park	13.1
Darvall Park	9.03	Lambert Park	2.49	Forrester/Forsyth	1.6

Field of Mars Reserve

Following the December 2002 bush fire, which burnt approximately three-quarters of the reserve, the natural regeneration of bushland has been of a very high quality. The frequency and intensity of fire can have a marked impact on the composition of the flora in a particular area of vegetation. Some plant species relied solely on seed for their regeneration after the fire while other plants were able to regenerate by vegetative shoots from the roots or from the burnt stems. Most plants will require a number of years following germination before they reach maturity and are able to flower and set seed. If fire occurs more frequently than the time the plants take to mature, the plants may be eliminated from the particular area. A number of dead and dangerous trees were removed after the fires and the Canonwalk boardwalk was rebuilt. An \$11 000 grant was received from the Premier's Department to assist with post-fire works.

The Field of Mars Cemetery Trust and the City are working in close cooperation and completed a major rehabilitation of the western embankment interfacing the Cemetery and the bushland. This project has been joint funded and extended over a number of years with dynamic results for the local ecology. The bush regeneration contract works have underpinned these works and maintained the Wellington Road areas, as well as Strangers Creek, Moncrieff Road, Finch Avenue and Pittwater Road boundary areas where the interfacing boundaries to the park cultivate the strongest weed populations. The contractor has worked with the volunteers and Bushcare Coordinator to manage infestations resulting from the December 2002 fires, utilising the \$11 000 Premier's Grant to full effect.



The former Council depot in Wellington Road has been removed and a remedial action plan is being implemented. A Community Nursery option is being developed as part of the above plan.

The park has had ongoing drainage and bush rehabilitation works undertaken at the Pittwater Road main entry area. This includes the Kennedy Street rock structure and staircase. These works will continue next year and include a comprehensive signage program for the entire reserve and development of the recreational area.

White Feather Honey Myrtle (*Melaleuca decora*) seedlings are being grown from one of the remaining mature trees located in the City. These seedlings will be planted out at the top of Strangers Creek in Field of Mars Reserve replacing mature Willow trees that were removed this year. *Melaleuca decora* no longer occurred in the Turpentine Ironbark Forest in Field of Mars Reserve, the remaining poor specimen growing in adjacent Tyrell Park.

The Coordinator Bushcare Volunteers worked this year with five different volunteer bushcare groups in the Field of Mars Reserve and the works are making a visible impact on weed colonies.

Brush Farm Park

City engineers managed the instalment of a \$90 000 gross pollution device at Brush Farm Park by contractors and paid for by the Roads and Traffic Authority. The western portion of the park in the Rutledge and Winbourne Streets area has been upgraded. Works include treatment of Rutledge Street road reserve both inside the park and in front of residential properties. These works were carried out in cooperation with the Roads and Traffic Authority and included rehabilitation of the road reserve into a native bushland and turf area, koppers log fencing, canopy and midstorey weed removal, and educational signage. Inside the Park, the road reserve area is being converted into a bush rehabilitation area.

The bush contractor for Brush Farm Park and Lambert Park and the volunteers have this year completed the cutting and painting with herbicide of the major mature canopy weeds on the southern side of Brush Farm Park. They have now poisoned the last of the Privets and African Olives for the whole of the park. This has been the thrust of their major campaign, and includes the perimeter of the park and adjoining Lambert Park. The above dominant flowering canopy of woody weeds has been eliminated.

The steep and degraded western embankment adjoining Winbourne Street has been transformed this year. The Clean Up Australia Day saw the removal of many tonnes of gross pollution. The Silverwater detainees have removed many layers of weed infestation occurring in the above area over many regular visits supervised by Prison Officials and park volunteers. The volunteers have mulched and planted out sections of the once highly degraded embankment and have maintained an extraordinary six day a week program of works over the

course of the twelve months. Over 4 000 indigenous seedlings are currently being grown for planting out early in the New Year.

Future Actions

- Continue to apply the *Threatened Species Conservation Act, 1995*.
- Continue implementation of the high quality Volunteer Bushcare Program.
- Further develop the Community Noxious Weeds Program.

Management Plan 2002/03 Progress Summary – Bushland Regeneration and Management

Objective	Strategy	Measures/Targets	Progress
Unification of the Brush Farm Park Stakeholders.	Develop a Plan of Management (POM) for Council adoption.	Complete Draft POM by June 2004 Adoption by Council.	Initial report to Council has been adopted.
Unification of the Field of Mars Stakeholders	Ongoing development of the initial Plan of Management for Council adoption.	Complete POM by December 2004. Adoption by Council.	Initial report to Council has been adopted.
Develop Community Noxious Weed Program.	Develop program for bushland areas suitable for program.	Complete Outlook Park Community Weed Program in 2002/03.	Completed
Complete rehabilitation of former Wellington Road Depot.		Nursery options developed. \$6K indigenous seedlings propagated.	Nursery options by March 2004. Seedling propagation due to commence in September 2003..
Complete \$220 550 Stage 3 and 4 Stormwater Trust Grant for Darvall Park.	Complete field works and water quality monitoring program.	Creek line drainage works. Walking track. Signage. Water Quality Monitoring. Report to Council.	Creek bed rock control structures completed. Walking track completed December 2003. Signage completed December 2003. Water Quality Monitoring completed December 2003. Report to Council planned February 2004.

3.2 Fire Management

Bush fire risk management strategies are directed at addressing the risk to community and environmental assets. This is achieved through addressing those factors comprising the risk, i.e. the bush fire hazard (fuel loads), the sources and patterns of ignition and vulnerability of the assets at risk. Therefore hazard reduction programs are equally important for providing cleared asset protection zones.

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 in each plant community type.

A priority this year, due to the extreme summer weather conditions experienced in Ryde in recent years has been the need to closely monitor existing fire breaks in the City, and create new ones.

Pressures

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

Response

Bush Fire Hazard Reduction

The NSW Fire Brigades undertook 17 ecological/hazard reduction burns at various parks this year. Broad area burns occurred near Pryor Park at East Ryde, in the Field of Mars Reserve, behind Finch Avenue and Kellaway Avenue, and in Darvall Park. The 2003/04 Hazard Reduction/Ecological Burn Program

has been submitted to the District Bush Fire Management Committee and adopted.



To further improve management of firebreaks there is currently being developed an electronically mapped Fire Breaks Roster Service level agreement between EnviroServe and Urban Landscape Services which will precisely target the maintenance schedule frequency of various fire break areas across the City.

Although firebreaks have already been classified as 'high', 'medium' and 'low' and receive maintenance schedules accordingly, the new Fire Breaks Roster will contain the following maintenance frequencies, Level One – Two Weeks, Level Two – Three Weeks, Level Three – Four Weeks, Level Four – Six Weeks.

Field of Mars Reserve

Ongoing maintenance works have occurred on the key fire trail strategically placed along the ridgeline of Field of Mars (FoM) Reserve and surrounding the FoM Cemetery.

The upgrade of the main fire trail included re-grading where appropriate and clearing all overhanging, dead and dangerous vegetation.

At Leawill Place an isolated patch of dry scrub contiguous to housing has been identified and a two-metre firebreak has now been installed.

The northeastern boundary below residential properties in the last quarter of Finch Avenue has had ongoing hazard reduction works since the wildfires in 1994.

Unfortunately, due to consistently adverse weather conditions, Stage Six of the 15 year hazard reduction program, a large central burn, starting from the Stage three burn at Wellington Road to the centre of the Park was not able to be completed before the arson attack of 5 December 2002. This would have further assisted in halting a major conflagration.

Stage Four was completed in April 2002, which was in the Turpentine Ironbark Forest located in the Kellaway Avenue and Cressy Road corner of the park.

Stage Five was completed in July 2002 behind 32-46 Finch Avenue. All of the above burns on the northeastern boundary satisfactorily removed large amounts of standing fuel, which greatly assisted in the containment of the December 2002 wildfire. Other activities include an upgrade of the Kellaway Avenue firebreak, with removal of dead and dangerous trees within the firebreak area, which is also being undertaken for all walking tracks throughout FoM Park.

Pembroke Park

Pembroke Park has received additional works this year with a firebreak paid for by Energy Australia installed around the electrical sub-station. The City undertook these works and also removed the adjoining population of bamboo. The entire northern portion of the park is now prepared for a broad area ecological/hazard reduction program.

Denistone Park and Darvall Park

Both of the above Blue Gum High Forest parks have had extensive works undertaken with large amounts of weed removal prepared for broad area ecological / hazard fuel reduction programs. The NSW Fire Brigades have completed the majority of the fuel reduction burns in both parks.

General Ecological Hazard Reduction Burns

The following parks and areas have had comprehensive weed removal works undertaken and are now prepared for burning or have already been burnt;

- Glades Bay Park - Tasman Place
- Portius Park - Corner Epping Road and Herring Road
- Minga Reserve - Tyagarah Park
- Lot 13 Busaco Road - Looking Glass Bay Park
- Meadowbank Park - Forsyth Park
- Brush Farm Park - Marsfield Park

Community Fire Units

A Community Fire Trailer Unit has now been installed at Busaco Road, Marsfield to assist local residents to stabilise fire activities until the NSW Fire Brigades have reached the fire ground.

Before the December 2002 wildfire, the NSW Fire Brigades, the City of Ryde and residents adjacent to Field of Mars Reserve were in the process of initiating a Community Fire Unit. The Fire Unit is now proposed to be installed in the 2003-2004 financial year.

Future Action

- Implement the approved 2003/2004 Hazard Reduction/Ecological Burn Program.

Management Plan 2002/03 Progress Summary – Fire Management

Objective	Strategy	Measures/Targets	Progress
Community land managed.	Implement management in adopted Plans of Management.	Targets as per performance in PoM. Complete approved 2002/03 Hazard Reduction/ Ecological Burn Program.	In progress.

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3.3 Pest Management

Predation by introduced foxes and increased competition from introduced grazing rabbits is threatening the existence of native mammals in our local bushland. Unless numbers of foxes and rabbits are controlled, we risk further loss of native mammals and destruction of native vegetation.

Goal

State

Since 2000 the City has participated in the Sydney North Regional Fox Control Program. The program involves 12 local government areas, the National Parks and Wildlife Service, Taronga Park Zoo and Macquarie University.

Yearly baiting is conducted in approximately 100 bushland reserves in the Northern Sydney region. The number of foxes in the City of Ryde is unknown. Rabbits are also a problem in the City.

Pressures

- Loss of small native vertebrate species from fox predation.
- Increased rabbit infestation destroys native vegetation.

Response

Foxes

Two fox baiting programs were undertaken in September 2002 and May/June 2003 at Field of Mars Reserve and Brush Farm Park. Two 1080 poison baits were taken by fox(es) at Field of Mars Reserve in September only and none at Brush Farm Park. However, fox activity has been recorded at Brush Farm Park.

Rabbits

A rabbit-culling program was undertaken at Christie Park in April 2003. The City constructed five bait-monitoring stations at the interface of the bushland and sports fields.

Sentinel baits were laid over a period of two weeks, and thereafter a licenced pest operator laid Pindone laced carrots. In relationship to the amount of poison taken it is understood that a large population of rabbits were killed.

Future Actions

- 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.

Management Plan 2002/03 Progress Summary – Pest Management

Objective	Strategy	Measures/Targets	Progress
	Identify key population areas.	Devise plan with Field of Mars Cemetary and where required relevant contractors.	Initial meeting of all stakeholders held. Cemetery Trust to confirm level of commitment. Report to Council on outcome/ Proposed plan of action.
Reduce fox population levels in Field of Mars and Brush Farm Park.	Fox Baiting Program.	Complete four baiting programs anually.	02/03 program completed.
Remove rabbit vegetation habitat in Field of Mars Reserve.	Locate key population areas.	Complete by 2002/03.	Completed in December 2002.

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3.4 Native Flora and Fauna

The City of Ryde's bushland consists of 164 hectares of remnants along riparian corridors that link with the Lane Cove National Park and foreshores of the Parramatta River.

The City of Ryde has the responsibility to implement the *Threatened Species Conservation Act* 1995 both when assessing development applications and when managing its own lands to protect flora and fauna.

The Threatened Species Conservation Act 1995 (TSC Act) and the National Parks and Wildlife Act 1974 (NP and W Act) are the two most important NSW pieces of legislation to protect wildlife. These Acts protect certain listed classes of wildlife including:

- Threatened Species Act 1995:
 - Endangered species (Part 1, Schedule 10)
 - Endangered populations (Part 2, Schedule 1)
 - Endangered ecological communities (Part 3, Schedule 1)
 - Vulnerable species (Schedule 2)
- National Parks and Wildlife Act:
 - Protect fauna (Note: All fauna is protected in NSW unless it is listed in Schedule 11)
 - Protect native plants (those listed in Schedule 13)

The criteria that determines whether a species is in one of the above categories and is on the current list of threatened species can be found on the NSW Department of Environment and Conservation (former Environment Protection Authority) web site under National Parks and Wildlife Service – “About the NPWS Legislation”

Ongoing faunal surveys are required to benchmark existing levels of faunal activity as this is not well known for the City of Ryde.

Goal

To implement strategic and comprehensive bushland programs that encourage opportunities for passive recreation in natural areas in the City of Ryde

To protect biodiversity through weed management, environmentally sensitive riparian works, bush regeneration and restoration, and fauna management

State

The 1996/97 State of the Environment Report under Biodiversity in the fauna section stated that the water rat was reported in Gladesville on or before 1887 and in Hunters Hill on or before 1930.

There is anecdotal evidence of the presence the native water rat of the genus *Hydromys* in Kittys Creek upstream from Pittwater Road, until about 1982. Some small mammal trapping has been undertaken since and a number of water rats have been encountered. There is also anecdotal evidence of the water rat being sighted in the Lane Cove River upstream of Fullers Bridge.

Six major plant communities are also 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 (Casuarina foreshores, mangrove forests and saltmarsh)



Three plant communities, five flora and three fauna species found in Ryde are listed under the *Threatened Species Conservation Act 1995*.

Plant Species	Classification	Locations
<i>Acacia pubescens</i>	ROTAP Code: 3 V C a Plant Distribution = Range > 100km but small in population. Conservation Status = Vulnerable – at risk over a longer period (20-50yrs). Reservation Status = Known to occur within a proclaimed reserve.	Putney Park
<i>Epacris purpurascens</i>	ROTAP Code: 2 K C- Plant Distribution = Restricted – Range extending over < 100km's. Conservation Status = Poorly known species suspected of being at risk. Reservation Status = Known to occur within a proclaimed reserve	Field of Mars Reserve; Pages Creek. Isolated bushland west of Vimiera Road, Marsfield
<i>Melaleuca deanei</i>	ROTAP Code: 3 R C – Plant Distribution = Restricted – Range extending over < 100km's. Conservation Status = Rare but with no current identifiable threat. Reservation Status = Known to occur within a proclaimed reserve	Lucknow Park, Terrys Creek
<i>Tetradlea glandulosa</i>	ROTAP Code: 2 V C – Plant Distribution = Restricted – Range extending over < 100km's Conservation Status = Vulnerable – at risk over a longer period (20-50 yrs). Reservation Status = Known to occur within a proclaimed reserve	Berriwerri Reserve; Lucknow Park
<i>Darwinia biflora</i>	ROTAP Code: 2 V C a Plant Distribution = Restricted – Range extending over < 100km Conservation Status = Vulnerable – at risk over a longer period (20-50 yrs). Reservation Status = Known to occur within a proclaimed reserve. Also species is considered to be adequately reserved 1,000 or more plants occur within a proclaimed reserve.	C.S.I.R.O. North Ryde
<i>Diuris bracteata</i>	ROTAP Code: 1X Plant Distribution = Known only from type used to originally describe species. Conservation Status = Presumed extinct – not collected for 50 years or the only known population destroyed.	Gladesville (Kubiak 1995)

Note: ROTAP = Rare or Threatened Australian Plant Coding System

Acacia pubescens, *Tetradlea glandulosa* and *Darwinia biflora* (no common names) are all listed as 'Schedule 2 Vulnerable species' under the *Threatened Species Conservation Act 1995*. *Epacris purpurascens* var *purpurascens* (no common name) has not been added to the Act. The rare Deane's Tea Tree (*Leptospermum deanei*) was recognised in 1996 in the upper Lane Cove River at Pennant Hills Park and at Middle Harbour. It is considered vulnerable and a further study should be done to see if it occurs in City of Ryde bushland.



Pressures

- Habitat fragmentation and clearing of native vegetation.
- Altered fire regimes threaten biodiversity.
- Domestic pets kill wildlife and dog droppings pollute waterways.
- Foxes and feral cats threaten biodiversity.
- Noxious weeds displace native vegetation.
- Increasing development results in greater areas of impervious surfaces, resulting in greater runoff.
- Increased human population density puts pressure on the bushland reserves, and flora and fauna communities.

Response

- The City of Ryde spent \$287 280 this financial year on bush regeneration contracts. Works were completed in twenty-five bushland parks. The City also supported bushcare volunteers through the Volunteer Program.
- Key works undertaken this year included:
 - A major project to map all walking tracks in bushland areas utilising the City's portable GIS system was commenced. Mapping of the Glades Bay Aboriginal Heritage Walking Track and in Brush Farm Park and Field of Mars Reserve have been completed.
 - The bush fire-mapping project utilising the Rural Fire Services guidelines has been completed and adopted by the City.

- The City received from National Parks and Wildlife Services a list of the remnant vegetation of the Cumberland Plains (in digital format).
- Identification of a small population of *Acacia pubescens* has been made in City of Ryde previously thought to have been extinct in Ryde. This plant is listed as Vulnerable under the *Threatened Species Conservation Act 1995*.
- Stage Three of the major creek rehabilitation project in Darvall Park was completed. The northern portion of Smalls Creek in Darvall Park has now greatly improved creek bank stability to support the tall Blue Gum (*Eucalyptus saligna*) canopy species. The bushland area is treated and prepared for an ecological burn in the near future by NSW Fire Brigades. Stage Four has commenced with the repair of a major erosional point located at a scour pipe line draining from the 750 mm Mobbs Hill Rising Main. Utilising creek bedrock control structures and indigenous seedlings, the area has been successfully stabilised.
- Other aspects of the project include further creek line stabilisation, comprehensive weed removal, ecological/hazard reduction burns and replanting in select areas only.



- An in-house staff training project was conducted during which an additional rock riffle drain was built to match existing Natural Heritage Project works in Barton Reserve.
- A rock riffle drain was added to the existing stormwater channel works at Martins Creek, and surrounding embankment subsequently planted out with endemic seedlings.
- Rehabilitation of land surrounding Shrimptons Creek bikeway including erosion control, planting and mulching was completed.

Future Actions

- Consideration be given to undertaking a Natural History of Ryde Project to document the natural heritage of Ryde City to support the local naturalists in their studies of local bushland. Legislation requires that the community (including environmental groups) must be involved in monitoring changes to the environment over time.
- Further information about the flora of the City of Ryde remains to be synthesised and collated. This is a project that will be considered by the City.
- To explore the feasibility of developing a local bush walking program.

Management Plan 2002/03 Progress Summary – Native Flora and Fauna

Objective	Strategy	Measures/Targets	Progress
	Implement management as specified in adopted Plans of Management.	Targets as per proposed performance in Plans of Management reviewed by December 2002 and June 2003.	<p>Reports to Council have been completed for the following major Crown Land Reserves:</p> <ul style="list-style-type: none"> • Field of Mars Reserve (December 2002) • Brush Farm Park (February 2003). • Specific Plans of Management are to be prepared for each reserve. • Community reference groups have also been established to assist in management and development of new plans for both reserves.

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3.5 Noxious Weeds

An increasing number of local councils in the Sydney region have started inspection programs on a larger scale to educate the community about noxious weeds and to enforce their control.

Bushland regeneration programs have proven to be labour intensive and costly but are successful in saving local biodiversity.

It is only through the combined efforts of private landholders and local and state governments that the control of noxious weeds will prove to be most effective.

Goal

To continue educating the community about noxious weed control and to extend inspection programs to manage and control the incidences of primary and satellite infestations of noxious weeds on public and private land.

State

In the current reporting period the City of Ryde received 29 complaints concerning noxious weeds on private land.

Noxious weeds are prolific throughout the City of Ryde both on public and private land. Noxious and other environmental weeds are infesting public land, including urban bushland, and City of Ryde's efforts to control them are greatly reduced if weeds from surrounding residential properties continue to re-infest public land.

In the past, landowners have not been able to identify noxious weeds or have not known how to control them, and this has provided a constant source of seeds to invade local bushland.

Pressure

- Noxious weeds pose a threat to the biodiversity of urban bushland and some pose a risk to public health.

Response

- The City of Ryde adopted the new common noxious weed list that was completed by the Sydney North Noxious Weed Committee in the previous reporting year. However, the list is still in the process of being adopted by other member Councils and it can not be used until the amendments have been proposed to, and adopted by the NSW Agriculture Department.
- The City continued to receive residential noxious weed complaints in various parts of the City and 29 properties were inspected and reported on. Council Environmental Health Officers investigated complaints about noxious weeds on private land and provided advice to landholders where appropriate. Notices may also be issued requiring landholders to control noxious weeds.

- Council and Tollaust worked together to combat isolated populations of noxious weeds in areas along the M2 Tollway.
- Ongoing GIS based mapping of infestations by staff and contractors continued.
- A Noxious Weed display was presented at the Granny Smith Festival in October to educate the community.

Brush Farm Park

After a request was made by Bushcare volunteers that have dedicated more than 25 years to the Brush Farm Park, the City commenced the Brush Farm Park Noxious Weed Program.

The first community educational stage of the Brush Farm Park Noxious Weed Program was completed during this reporting period. The program supports bushland regeneration and conservation of biodiversity in the Park by targeting noxious weeds on surrounding private properties. Out of the 402 properties visited during 2001-2002, 80% were found to contain noxious weeds.

The most common of the 24 types of noxious weeds found were:

<i>Type</i>	<i>Percentage of properties</i>
Broadleaf Privet	40%
Wandering Jew	39%
Camphor Laurel	37%
Asparagus Fern	37%
Ochna	35 %
African Olive	29%

164 of the 322 properties with noxious weeds were selected for Stage 2 re-inspections as they contained significant mature noxious weeds, or weed types were found that require complete removal. Stage 2 inspections will be carried out in the next reporting period.



Alligator Weed Project

City of Ryde successfully applied for a Federally funded \$21 000 Alligator Weed Grant, of which \$11 000 has been directed to the City foreshore parks on Parramatta River. A further \$5 000 grant was also received from NSW Agriculture from the Blue Mountains / Western Sydney Noxious Weed Committee for Alligator Weed control.

The program includes growing saltmarsh and native grasses to plant out in the intertidal zone to assist reducing the spread of Alligator weed in high tides onto the upper slopes of grassland.

At this time Alligator weed has been controlled and is being monitored for any regrowth.

Pampas Grass

In April 2002 City of Ryde employed a bush regeneration company to target Pampas Grass in the North Ryde area, specifically at the old tip at Porters Creek.

The initial scope of the project was limited to this area and was to involve the removal of the mature seed heads from the plants to at least prevent the dispersal of seeds for this season.

Pampas Grass (*Cortaderia selloana*) has been growing in the vicinity of the tip for several years. By April 2002 there were over 100 mature plants growing here with copious amounts of seed heads. This highlighted the value of the project, considering that seeds can travel 40 kilometres, and Lane Cove National Park lies directly below this ridgeline.

The project was later expanded to include localities in North Ryde, Marsfield and East Ryde. These were followed up and extensive field surveys undertaken in likely growth locations.

At the end of July 2002, a corridor stretching from Terrys Creek in Marsfield to Buffalo Creek in East Ryde had been surveyed and the bulk of the Pampas Grass controlled.

The project is ongoing, but thousands of seeds have already been prevented from spreading into the Lane Cove National Park, which is a significant achievement.

The areas where work has taken place will be re-inspected at the beginning of December to monitor the effectiveness of the control and a follow-up program will be conducted in March next year.

Tussock Paspalum (Blue Grass)

The City of Ryde is administering a \$28 400 Group Project Funding Grant application for the Implementation of the Tussock Paspalum Plan - Sydney North. The project involves seven councils, the Roads and Traffic Authority and National Parks and Wildlife Services.

The Parramatta Rail Link Project has removed a large area of weed from the Delhi Road area this year. However there is still growth activity in Pages Creek area and in Wicks Park.

The City and Tollaust are working together to combat isolated populations in areas along the M2 Tollway.



Future Actions

- Reinspections of properties around Brush Farm Park will be conducted during 2003/04 in order to give landholders at least a year to carry out control, as promised. Any remaining, as well as new noxious weeds found will be recorded in order to evaluate the education efforts made during the first stage of the program. Meanwhile, the City's incentives were continued during 2002/03 in the form of limited pickups of noxious weeds and giveaways of native replacement plants.
- Further develop the Community Noxious Weeds Program

Management Plan 2002/03 Progress Summary – Noxious Weeds

Objective	Strategy	Measures/Targets	Progress
Develop a Community Noxious Weed Program.	Develop a program for suitable bushland areas.	Complete Outlook Park Community Noxious Weed Program in 2002/03.	Completed.
Eliminate/Control Alligator Weed in the City of Ryde.	Continue Alligator Weed Project. Form alliance with Parramatta City Council.	Apply for continued funding. Coordinate program with Parramatta Council. Intensive foreshore native regeneration/weed removal at Settlers Park and Melrose Park.	Application submitted. Field days planned. Seedling propagation commenced. Ongoing Bush Regeneration works occurring.
Control Tussock Paspalum (Blue Grass) in the City of Ryde.	Continue with Blue Grass Project.	Apply for continued funding.	Application submitted.
Control Pampas Grass in the City of Ryde.	Continue Pampas Grass Project.	Apply for continued funding.	Application submitted.

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Chapter 4 – Water



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4.1 Water Quality

Waterways and aquatic systems are fundamental to the global ecosystem. By looking after aquatic systems we are looking after a fundamental component of the environment. Conserving our biodiversity is vitally important.

The City of Ryde straddles the Lane Cove River, Middle Parramatta River, and Lower Parramatta River catchments. Seventy percent of the City of Ryde stormwater catchment drains to the Lane Cove River. The City of Ryde is a member of the 3 catchment committees and the Lane Cove River Estuary Management committee.

Urban development has impacted on the health of waterways in the City of Ryde. To improve the health of these waterways and the aquatic environment, it is necessary to measure their health by an appropriate method, educate the community about the types and impacts of stormwater pollution and to act to reduce the amount of pollution entering these waterways.

Goal

To improve water quality of our waterways, including receiving waters

To monitor changes in aquatic health

To increase community awareness of stormwater pollution

To maintain stormwater infrastructure

State

Water quality in the natural waterways of the City of Ryde has been affected by urbanisation over many years. Pollutants from residential, industrial, commercial and recreational areas have increased nutrient levels resulting in weed and algae growth. Oil and grease from petrol stations, cars and roads contain hydrocarbons that destroy aquatic flora and fauna.

Pollutants in the form of litter and organic material that find their way into the natural streams can choke and reduce the visual amenity of these waterways. Sediment build up in our waterways remains a significant threat to the health of our local waterways as does the impact from sewer overflows. The Sydney Water Corporation is addressing the latter.

It is therefore essential to manage activities on a catchment management basis within the City of Ryde local government area to preserve and enhance existing aquatic systems and conserve biodiversity for future generations.

Catchment management is essentially community education, planning and policies, regulation, infrastructure and maintenance for the purpose of improving or maintaining catchment health. The City of Ryde's approach encompasses these methods through Development Controls, Enforcement and Regulation, Pollution Control Devices and Infrastructure maintenance.

Existing Stormwater Management Plans for the Lane Cove River Catchment and the Mid and Lower Parramatta River Catchment areas of the City have been in place since 1999 and strategies from these plans continue to be implemented as funds become available. These Stormwater Management Plans are currently under review.

Pressures

- Increased hard surfaces associated with urbanisation that results in greater volumes of runoff taking with it collected pollutants
- Community attitudes reflected in behaviour and lack of awareness that contributes towards water pollution
- Lack of integrated baseline aquatic health data to monitor changes in water quality
- An under capacity Sydney Water Corporation Sewerage network including the effects of a deteriorating sewer infrastructure and illegal stormwater connections may overflow in times of heavy rains causing damage to waterways.
- Limited resources to maintaining aging stormwater infrastructure

Response

Porters Creek Depot - Water Quality Monitoring

The water in Porters Creek upstream and downstream of the discharge point has been monitored on a monthly basis since November 1993. Sampling and laboratory testing of this water during 2002/03 found that the differences between the two sites was less than 1 mg/l for ammonia for 15 out of 16 tests, less than 1.5 mg/l for nitrate and nitrite for 15 out of 16 tests, and less than 1.5 mg/l for Total Kjeldahl Nitrogen for 12 out of 16 tests.

The leachate collection system, which was installed within the stormwater culverts at the site with the approval of the Environment Protection Authority, has been maintaining these results at a consistent level since its installation in 1996 to the EPA's satisfaction.

Biological Water Quality Monitoring

During the year biological monitoring at Buffalo and Porters Creeks was undertaken on two occasions as part of a continuing program, carried out in conjunction with Robyn Tuft and Associate, in partnership with the Citys situated in the Lane Cove River Catchment. City staff collect and initially sort the organisms, with further identification and analysis undertaken by Dr Tuft. The results are shown in 3 ways, namely, the AUSRIVAS index¹, the SIGNAL index² and a RCE score³.

This year Buffalo Creek showed a lowering of diversity according to the AUSRIVAS index, moving from Band B (below reference) to Band C (well below reference). Conversely, the signal index has increased from 3.3 (severely impaired) to 4.7 (moderately impaired). The RCE score remained unchanged at 33 (fair).



¹ The AusRivAS (Australian River Assessment System) biotic index is a modeled index which enables comparison between the macroinvertebrate community at one site and a relevant reference site.

² The SIGNAL index is a measure of water quality using the factors of indicator animals and abundance.

³ RCE – Riparian-channel-environmental inventory evaluates the condition of adjacent land, banks, channel and bed and riparian vegetation.

Porters Creek showed an increase in diversity as shown in both indices. AUSRIVAS index moving from Band C to Band B (below reference) and the SIGNAL index moving from 4.1 to 4.6 (moderately impaired). The RCE score remained relatively unchanged at 42 (good).

Last year the City of Ryde commissioned Biotrack Australia Pty Ltd to design and conduct a biological water quality-monitoring program for Shrimptons and Archers Creek.

The reported AUSRIVAS rating for Shrimptons Creek was moderately to severely impaired/degraded and for Archers Creek, mildly to moderately impaired/degraded.

The riffle habitats¹ 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.

There was no follow up monitoring of these systems conducted during the period of this report because it was considered more appropriate to analyse trends on a bi-annual basis. This will be reported in next year's report.

Streamwatch

The Lane Cove River Streamwatch Catchment Day was not organised this year. As a consequence the testing of Terrys, Shrimptons and Mars Creeks normally carried out in conjunction with this event did not take place.

City of Ryde staff responded to enquiries from schools participating in the Streamwatch program as required and in regards to pollution incidences.

One small project that resulted from testing by Epping Boys High School was staff from the City's City Land Information Systems Section plotting a previously unmapped and intermittent flowing creek using Global Positioning Systems (GPS) equipment. This allowed its location to be more accurately determined and placed into the 'Waterways' layer of the City's GIS system. This creek has been named Scribbly Gum Creek. It runs north from the Northern Suburbs Cemetery through the Lane Cove National Park to the Lane Cove River.

Also this year two new schools in the City of Ryde area joined the Streamwatch program, namely Marsden High School and Ermington Public School, testing Archers Creek. Outside the City of Ryde but also helping test Archers Creek was the Melrose Park Public School, West Ryde.

Community Stormwater Pollution Education

The City's coordination of stormwater pollution education was enhanced through the formation of a cross-divisional Environmental Education Team. The Team

was involved in “in-house” campaigns concerning littering of plastic items and cigarette butts, as a threat to fauna, in conjunction with Clean Up Australia Day.

The City of Ryde joined the EPA’s Tosser campaign and from September the message about cigarette butt littering has been conveyed to the community via posters and by giving away alternative ash trays in the form of used film canisters.

School education consisted of one-day talks at the Denistone East Public School Environment Day using a stormwater model and a presentation on screen, among other topics. Educational displays about water quality and stormwater pollution were manned during the Granny Smith Festival and on the Field of Mars Open Day. The Team’s streamlining of pamphlet distribution to libraries resulted in the continuous provision of stormwater pollution information.



Education display at Field of Mars Open Day

Stormwater Management

The following maintenance work was completed to the Stormwater Infrastructure:

City of Ryde Stormwater Catchment	Work completed
Archers Creek	Winbourne Street drainage Maze Park – piping of small overland flow section and surcharge pit
Buffalo Creek	4 Woodbine Cr – Reconstruction of the failed pipe through property
Charity Creek	Reconstruction of Forster Street drainage during road reconstruction
Eastwood	ANZAC Park and 22 Herbert Street –Reconstruction of undersized culverts Stage 1 Eastwood drainage scheme: Trelawney and Rowe Street drainage repositioning and capacity upgrade

Controlling Stormwater Pollution

The City's Stormwater Facilities and Services Section installed two Pollution Control Devices (PCDs) in 2002-03. The first was completed in September 2002 at Maze Park, West Ryde, funded by the City of Ryde. The second was completed in January 2003 at Brush Farm Park, Eastwood mainly funded by a grant from the Roads and Traffic Authority.

The following table shows the waste trapped by and removed from Pollution Control Devices during the 2002/03 financial year:

Stormwater Catchment and PCD location	Tonnes of waste collected
Archer's Creek – Maze Park Continuous Deflection Separation (CDS) unit	4.32
Archer's Creek – Brush Farm Park Humeceptor™	Not cleaned
Buffalo Creek – Ryde Park CDS unit	11.58
Denistone Catchment – West Ryde Stormwater Tunnel CDS unit	15.78
Eastwood CBD carparks – Humeceptors™	1.78
Shrimptons Creek Catchment GPTs	1.64
Total	35.1



Construction of Maze Park CDS Unit

Details of Creek Rehabilitation Work

Maze Park Creek Rehabilitation – Stage 1 of this project that began in 2001-2002 was funded and project managed by the City's Stormwater Facilities and Services Section.

Stage 1 was completed in April 2003. Approximately 100m of creek line from Brush Road in a downstream direction was rehabilitated by private contractor and the City's EnviroServe Group and included:

- Removal of noxious and environmental weeds and dumped rubbish from the creek
- Benching of the creek profile to more effectively convey high flows
- Creek bank stabilisation by rock armoring and revegetation with local native plant species
- Installation of a Pollution Control Device to trap rubbish, organic matter and sediment
- Installation of a fish ladder for trickle flows



Miriam Creek Rehabilitation - This project was funded and managed by the City's Stormwater Facilities and Services Section. Work on this project began in March 2003. Following construction of the West Ryde Stormwater Tunnel, flows through Miriam Creek were reduced to 'environmental flows'.

Prior to constructing the tunnel, Miriam Creek was subjected to a much wider range of stormwater flows, which caused severe erosion and scouring of the creek bed and banks.

Work has included removal of weeds, stabilisation of the creek bed and banks by filling of scour holes, rock armoring of the creek profile and revegetation of the area. Work is ongoing into 2003/04.



Shrimptons Creek – Regeneration and weed control of the areas along the creek funded by the Stormwater Trust Grant was undertaken. The areas receiving most attention were those around the Gross Pollutant Traps.

Street Sweeping

The City of Ryde utilises three suction sweepers to collect leaves, litter and silt from street gutters and drainage pits in a program that results in each gutter being swept on a cycle varying between four and ten weeks. This sweeping captures pollutants before they enter the stormwater pipe system and subsequently enter the Lane Cove River and the Parramatta River. In 2002/03, the quantity of pollutants collected was 853 tonnes.

The table below shows quantities of litter collected from street sweeping operations comparing the last four years.

Litter collected from street sweeping

<i>Period</i>	<i>Tonnages (per annum)</i>
July 1999 - June 2000	901
July 2000 - June 2001	828
July 2001- June 2002	679
July 2002 - June 2003	853

Future Actions

- Develop a water quality monitoring strategy for the City of Ryde.
- Consider community education programs on the prevention of stormwater pollution.
- Undertake regular water quality monitoring of local waterways.
- Review all existing Stormwater Management Plans and develop new plans for the next 3 years.
- Support Sydney Water Corporation's - Sewer Overflow Abatement Program.
- Continue installation of Gross Pollutant Traps and provision of funds for maintenance.
- Install Pollution Control Devices as part of drainage works at Railway Parade, Eastwood during 2003/04.
- Carry out urgent drainage replacement works at Eastwood Oval, the vicinity of 13 Lane Cove Road and at Railway Parade, Eastwood during 2003/04.

Management Plan 2002/03 Progress Summary – Water Quality

Objective	Strategy	Measures/Targets	Progress
<p>To improve water quality.</p> <p>Ensure resources are allocated to replace collapsing stormwater infrastructure.</p>	<p>Improve stormwater infrastructure.</p> <p>Regularly advise Council of the extent and cost of resolving the problems.</p> <p>Investigate all sources of potential funding.</p>	<p>Collapsing stormwater infrastructure replaced.</p> <p>Completion of funded work program.</p> <p>Gross pollutant traps installed.</p> <p>Measures proposed in Stormwater Management Plans implemented.</p>	<p>Completed piping of small overland flow section and surcharge pit at Maze Park.</p> <p>Reconstructed fractured and exposed pipe at Woodbine Cres.</p> <p>Reconstructed drainage pipes at Forster Street.</p> <p>Reconstructed culverts at Anzac Park and Herbert Street.</p> <p>Stage 1 Eastwood Drainage Scheme: Trelawney Street/Rowe Street drainage repositioned and capacity upgraded.</p> <p>GPTs installed at Maze and Brush Farm Parks.</p> <p>Ongoing investigation for other GPT installation sites continues.</p> <p>Began rehabilitation of Miriam Creek.</p> <p>Stage 1 Maze Park and Archers Creek Completed Grant Application made for Stormwater Education Project – not granted.</p> <p>Review of SMPs</p>

Objective	Strategy	Measures/Targets	Progress
	Water quality to be monitored.	Indicators of climate-weather, stormwater management plans, water quality be monitored to provide data on change in water quality.	<p>planned for next year. Biological water quality monitoring at Buffalo, Porters, Archers and Shrimptons Creeks Systems completed.</p> <p>Biological Monitoring conducted at Shrimptons, Archers, Porters and Buffalo Creeks. More monitoring planned for next year</p>
Implement the principles of ecologically sustainable development (ESD) within the operations of Council.	Develop and assist in the implementation of ESD programs.	Assist in the delivery of programs and activities identified in the City's Stormwater Management Plans.	Ongoing. Review of SMPs planned for next year.

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Chapter 5 – Air



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5.1 Air Quality

The quality of our air continues to be a fundamental concern for our local community but is better considered from a regional perspective.

Air pollutants impact on many aspects of the natural environment. For example, greenhouse gas emissions, including carbon dioxide, nitrous oxide and methane contribute to global warming.

Air quality can also impact human health directly through pollution from toxic chemicals.

Poor air quality therefore not only harms the global ecosystem but is also costly to humans.

Councils have an important role to play in improving local air quality through their provision of infrastructure, regulatory activities and the development of planning and environmental policies.

Goal

State

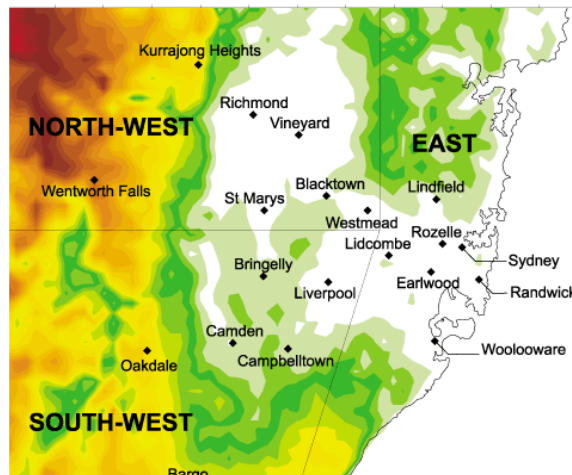
Motor vehicles continue to be the major source of most pollutants, contributing almost 50% of emissions in the Sydney region. The City continues to lobby State and Federal Governments for better integrated public transport planning systems to reduce reliance on the motor vehicle.

Industry, bushfires, illegal backyard burning and solid fuel heaters also contribute to air pollution and the City's programs have been focussing its attention on these areas.

It is difficult to quantify how successful Council has been in its programs because the air quality in the City of Ryde local government area cannot be taken in isolation. However, the number of highs that were recorded by the Regional Pollution Index (RPIs) in the Eastern region (the City of Ryde is in this region) were significantly fewer than last year.

The EPA uses these RPIs to determine whether the levels of air pollution in Sydney's urban areas are high enough to cause damage to human health and the environment.

Sydney's RPI Regions



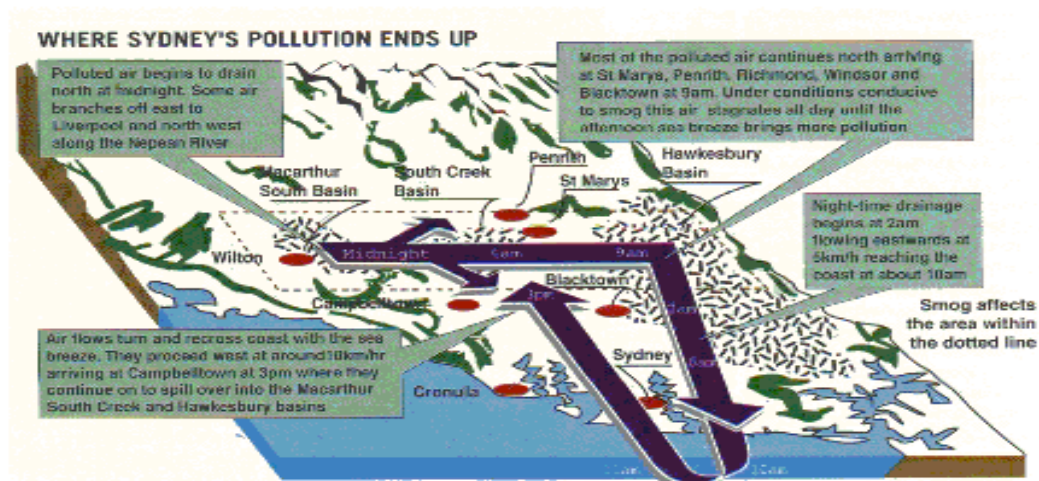
Source: Environment Protection Authority

Number of High Pollution Days

Period	Central East		North West		South West	
	am	pm	am	pm	am	pm
1999/00	0		7		5	
2000/01	31		13		13	
2001/02	22		37		34	
2002/03	14	(13)	16	(14)	13	(15)
Change (2002)	- 8		- 21		- 21	

Whilst it is understood that the air quality in the City of Ryde must be considered in a much broader regional context, the decrease in high level RPIs for the region are encouraging. This is particularly so as many of the high readings, particularly in the months of October, December and January were again the result of bushfires in the Sydney Metropolitan area.

The Interaction of Weather and Landform within the Sydney Airshed



(Source: The Sydney Regional Organisations of Councils (1994) Local Air Quality Management – A manual for Local Government ISBN 0 646 22296 1)

Pollutants

Carbon monoxide is an odourless, colourless gas produced by incomplete oxidation (burning). In cities, the motor vehicle is by far the largest human source, although any combustion process may produce it, including bushfires.

Incidences of local bushfires in the last 12 months saw a number of occurrences of high levels of carbon monoxide in the surrounding area. Carbon monoxide can remain in the atmosphere for a month or two. It is removed by oxidation to form carbon dioxide, absorption by some plants and microorganisms and by rain washing it from the air.

When inhaled, carbon monoxide binds to the oxygen-carrying site on the blood's haemoglobin, which reduces oxygen transport in the body and at high concentrations it is very toxic, causing headaches, dizziness, reduced ability to think, and nausea.

Sometimes, under certain meteorological conditions, the combined effect of a number of air pollutants is worse than the individual effects.

Photochemical smog, sometimes seen as a whitish haze present over cities during summer, is an example of this. Photochemical smog is formed on still days when the sun shines on air containing volatile organic compounds (VOCs) and oxides of nitrogen.

Urban haze is mainly due to fine particles, which cause scattering or absorption of light. CSIRO has found that the haze present in our cities is made up of a combination of organic compounds, elemental carbon (or soot), salt, sulfates, nitrates and dust. So in winter the brown colour on our horizon is mostly made up of soot from home combustion heaters.

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 older buildings are inefficient and not designed to conserve energy.
- Continued installation and use of domestic solid fuel heaters.
- Illegal backyard burning activities.
- Local air polluting industries.
- Bushfires during the summer months and the need for backburning creates air pollution.

Response

- The City of Ryde responds to specific air pollution complaints on a case by case basis. This year the City of Ryde received a total of 39 air pollution complaints directly and the EPA received 45 complaints relevant to the Ryde local government area. Of those 45 22 were the responsibility of the City as the appropriate regulatory authority and were attended to by the City. The most frequent complaints are about 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.
- Air pollution from solid fuel heaters is declining as a result of a new EPA requirement that all new solid fuel heaters must meet stringent Australia Streetstandards from July 2001. Any complaints received are investigated, and owners and operators are being educated on the correct use of the heaters.
- The City continues to play a role in improving local air quality through its provision of infrastructure, regulatory activities and the development of planning and environmental policies.
- 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 local Air Quality Management Plan and lobby surrounding Councils to develop plans.
- The City is acknowledging its responsibilities by applying the principles of Ecological Sustainable Development in all local area decisions to minimise impact from development on air pollution and reduce emissions of greenhouse gases in the region.

Future Actions

- Develop a local Air Quality Management Plan in conjunction with the Cities for Climate Protection Program. The plan will focus on the key elements of energy efficiency, land use and transportation planning, vegetation management, specific industry source control and education, information and public participation.
- Encourage neighbouring Councils to develop air quality management plans.
- Undertake Industry audit of Automotive Businesses in Gladesville.
- Continue responding to air pollution complaints in a timely manner.

Management Plan 2002/03 Progress Summary – Air Pollution

Objective	Strategy	Measures/Targets	Progress
To improve air quality.		Local Air Quality Management Plan be developed. Air quality monitored.	Incomplete. Planned for next year. Review of existing policies and projects relating to air in progress Air monitoring data obtained from regional EPA Air Monitoring Stations at Lindfield, Lidcombe and Rozelle.
Implement the principles of ecologically sustainable development (ESD) within the operations of Council.	Develop and assist in the implementation of ESD programs.	Develop a draft Local Air Quality Management Plan (LAQMP).	Incomplete. Planned for next year. Review of existing policies and projects relating to air in progress.

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5.2 Greenhouse Gas Emissions

“Greenhouse gases are a natural part of the atmosphere. They trap the sun’s warmth, and maintain the Earth’s surface temperature at a level necessary to support life.

The problem we now face is that human action, particularly burning of fossil fuels (coal, oil and natural gas) and land clearing is increasing the concentrations of these gases that trap more heat and change the climate. This is the enhanced greenhouse effect” (www.greenhouse.gov.au)

It will take coordinated global measures supported by local actions to develop truly sustainable energy systems to reverse the effect. Unless we do and make greater use of solar energy and other alternative sources, the consequences over the next 50 years could include:

- Significant atmospheric temperature rises (particularly at high latitudes).
- Rising sea temperatures and levels (causing flooding, coastal erosion, damage to coral reefs etc).
- More frequent extreme weather events (such as floods, storms and droughts).
- The need to move agricultural activities and infrastructure to different locations.
- Substantial reduction in biodiversity.
- More severe bushfire seasons.

Goal

To reduce greenhouse gas emissions in the City of Ryde

To support the Federal Government’s Climate Change Action Agenda

State

Figures show Australia’s economy is becoming less greenhouse intensive, with projections showing a 43% improvement from 1990 to 2012 in emissions per dollar of Gross Domestic Product.

The Government will continue to develop and invest in domestic programs to meet the target agreed to at Kyoto of limiting greenhouse emissions to 108% of 1990 levels over the period 2008 – 2012.

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 buildings are inefficient and not designed to conserve energy.
- High cost of harnessing solar energy
- Australian energy policy is currently being driven by short term considerations in favour of the fossil fuel industry, to the detriment of the renewable energy industry

Response

Energy efficient buildings

Buildings are responsible for 50% of energy consumed in Australia. As a result this year the City of Ryde adopted Development Control Plan (DCP) Energy Smart Water Wise DCP No 45. The plan provides energy efficient controls for all types of buildings including, houses, villas, residential flats, shops, industrial and commercial buildings. Houses are now 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 Star Greenhouse rating, and insulation standards are specified in the DCP.

The 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.

Future Actions

Join the Cities for Climate Protection Program and develop and implement a Greenhouse Gas Reduction Program.

- Review Energy Smart Water Wise DCP No 45 and monitor its uptake through the Development Consent process.
- Apply provisions of Energy Smart Water Wise DCP No 45 to any Council capital works program.
- Develop and implement actions that reduce Greenhouse Gas Emissions from Council's transport activities.
- Develop and implement initiatives that reduce greenhouse gas emissions from Council owned and operated buildings.

Objective	Strategy	Measures/Targets	Progress
Implement the principles of ecologically sustainable development (ESD) within the operations of Council.	Review the operations of Council to determine compliance with ESD principles.	Energy and water efficiency designs in new capital works programs.	Sustainability Building Checklist for Capital Works Program in progress. Also DCP 45 Energy Smart and Water Wise DCP has been adopted. Basic energy and water efficient standards from the DCP are being incorporated into the City's Capital Works Programs.

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5.3 Transport

Like most of Sydney, the most dominant form of transport in the City of Ryde is the motor vehicle. This is partly in response to a steady increase in traffic flows through Ryde due to the growth in Western and North Western Sydney, the Central Coast and from urban consolidation. 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.

The heavy reliance on motor cars for transport in, from, to and through the City of Ryde has a significant social and environmental impact on the quality of life of the local community, in terms of amenity and health risks due to declining air quality and increased congestion.



Goal

To encourage reduced reliance on use of the car.

To promote alternative modes of transport such as public transport to minimise air pollution.

State

All forms of public transport are available in the City of Ryde, however a greater use of these facilities must be encouraged. 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.

However, public transport to North Western Sydney is still not easily available and therefore reliance on the private motor vehicle would still be significant for people commuting to and from Ryde to areas of North Western Sydney.

The Department of Infrastructure, Planning and Natural Resources (Transport Data Centre) conducts annual surveys of travel patterns for the Greater Sydney Region and is currently processing data obtained from the 2002 Household Travel Survey (HTS). Findings will not be ready till late December 2003 and will be reported in next year's SoE Report.

The key findings from the 2001 Survey are, however, available for this report and are highlighted below:

- In 2001 Sydney's residents made over 15 million trips on an average weekday, up by 3% from 2000, while Sydney's population increased by 1.4% over the period.
- The weekday trip rate per person decreased slightly from 3.77 in 2000 to 3.74 in 2001.
- Social/recreational trips account for the majority of all trips (22%), followed by serve passenger (17%), shopping (16%) and commuting trips (15%). The share of commuting trips has remained stable since 1991, while the share of social/recreational and serve passenger trips has increased, and the share shopping trips has declined.
- Sydney's residents travelled a total of almost 142.5 million kilometres on an average weekday in 2001 – up slightly from the previous year, but up substantially from 1991 (120 million kilometres). Of the total weekday trips, 78% (or 111 million kilometres) were by private vehicles. (HTS 2001)
- The total kilometres travelled by Sydney's residents (includes all modes) on an average weekday increased by almost 2% each year between 1991 and 2000. The growth in private car use, measured by total vehicle kilometers (VKT), slowed to 1.5% in 2000, after a strong period of growth of 2.7% per annum from 1991 to 1999. (*Household Travel Survey Factsheet December 2002*)
- The mode share for public transport (train, bus and ferry) on an average weekday has remained stable at around 11% since 1991.
- Between 2000 and 2001 the number of vehicles driver trips increased, while there was a slight decline in the number of train, bus and walk only trips on an average weekday. The number of vehicle passenger trips remained stable over the period.

Vehicle Registrations 2002/03

Vehicle Type	Fuel Type							Total	Change from 2002
	Diesel	LPG	Unleaded Petrol	Petrol and LPG	Leaded Petrol	Unknown	Others		
Passenger Vehicles	44	450	49 417	168	3 035	648	9	53 771	2 332
Off-road Passenger Vehicles	369	2	4 423	25	2	0	2	4 823	751
Small Buses	48	1	144	1	136	3	0	333	-19
Buses	52	1	1	0	2	0	88	144	4
Mobile Homes	13	1	9	0	20	2	0	45	6
Motorcycles	1	0	778	0	162	5	0	946	-22
Light Trucks	978	115	4 205	93	529	65	1	5 986	316
Heavy Trucks	389	2	7	0	3	6	0	407	-73
Prime Movers	32	0	0	0	0	0	0	32	9
Plant	127	8	5	6	5	3	4	158	-6
Trailers	0	0	0	0	0	0	4 345	4 345	-45
Other Vehicles	0	0	4	0	1	1	0	6	-1
Total	2 053	580	58 993	293	3 895	733	4 449	70 996	3 252

Notable changes:

- A reduction of 18% of the heavy vehicle fleet,
- An increase in the overall passenger vehicle fleet of 2 332 vehicles,
- A reduction of 726 (almost 24%) leaded petrol vehicles,
- An increase of 245 in the LPG passenger vehicle fleet

Road Safety and Pedestrian/Bicycle Amenity

A continued decline in motor vehicle accidents/casualties has occurred on Ryde roads over the past five years however, the recent downward trend in accident number and casualties is leveling off. Total Accidents are shown in the following table:

Motor Vehicle Accidents/Casualties

Year	1998	1999	2000	2001	2002
Total Accidents	895	879	893	879	885

The provision of 22.1 km of bicycle paths and 418 km of footpaths encourage cycling and walking in the City. 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 2002 the number of pedestrian casualties in Ryde has not significantly changed from the previous 4 years of statistics. However, there was an increase in the number of pedal cyclist casualties in Ryde, up from 11 in 2001 to 22 in 2002. This statistic will continue to be monitored.

Pedestrian Casualties

Year	Ryde LGA	Sydney
1998	43	2488
1999	41	2440
2000	46	2422
2001	43	2281
2002	42	2048
Total Accidents	215	11679

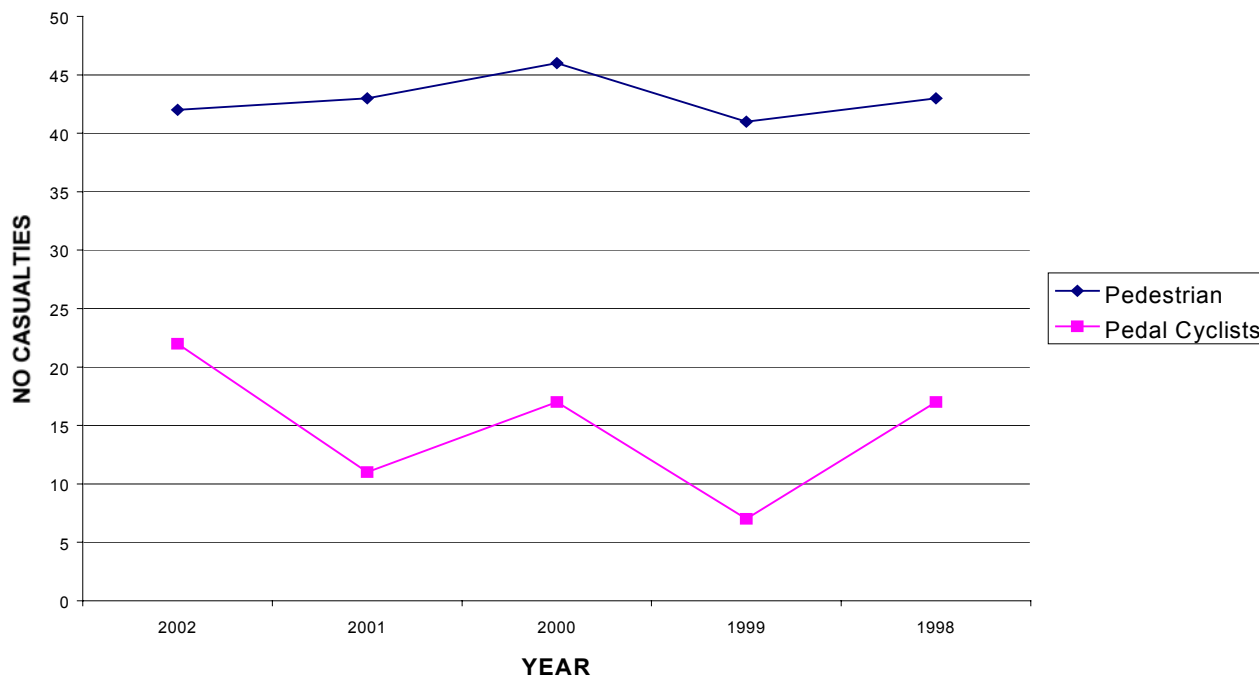
Source: RTA Road Traffic Accident Data

Pedal Cyclist Casualties

Year	Ryde LGA	Sydney
1998	17	713
1999	7	743
2000	17	757
2001	11	743
2002	22	857
Total Accidents	74	3813

Source: RTA Road Traffic Accident Data

Pedestrian and Pedal Cyclist Casualties in the City of Ryde



Rail passenger journeys

Local Rail Passenger Journeys in Ryde LGA

Year	1998 - 1999	1999 - 2000	2000 - 2001	2001-2002	2002-2003	Change
Eastwood	1 675 630	1 750 591	1 771 807	1 747 347	1 724 319	-23 028
West Ryde	1 220 941	1 250 220	1 218 000	1 127 147	1 072 346	-54 801
Meadowbank	730 646	695 606	704 010	683 305	666 447	-16 858
	3 627 217	3 696 417	3 693 817	3 557 799	3 463 112	-94 687

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.

Response

Public Transport

The “*Better Buses*” proposals continue to be implemented in by Sydney Buses to improve the services. Improvements in Ryde included:

- A break in the median in Rutledge Street to allow buses only to turn right into the northern ramp linking West Parade and Rutledge Street has improved the operation of buses in and out of Eastwood. This has increased patronage by 25%.
- There are more express buses operating between Macquarie Centre, Eastwood and Top Ryde via Victoria Road.
- More transit lanes on Victoria Road in Gladesville and Drummoyne, however this has also caused some traffic congestion problems.
- Bus lanes are being introduced on Victoria Road similar to other areas in Sydney metropolitan area.
- At present construction of cross-city tunnel is well in progress, and this presents an opportunity to plan for better public transport on Victoria Road.
- Whilst it is impossible or impracticable to provide full public transport services in the City of Ryde, it is considered that improved rail links and bus services and a policy to moderate demands for roads would encourage more public transport use.
- The City’s urban village programs are designed to be pedestrian friendly places which would encourage people to live in the centres and make it easier and safer to use public transport.

The following public transport projects are currently proposed or completed:

- Proposed traffic signals at the corner of Marsden Road and Lawson Street, Eastwood to improve safety to traffic and pedestrians and also to prevent through traffic using surrounding residential streets to by-pass this intersection.
- Upgrading the bus interchange at Macquarie Centre, North Ryde to provide Bus only area, separate taxi parking and turning lane on Herring Road and Pedestrian signals on Herring Road.

- Installation of a continuous transit lane along Victoria Road, between Bowden Street, Ryde and Cressy Road, Gladesville.
- Awaiting Top Ryde Traffic Study from the RTA for future public transport improvements.
- Completion of upgrading of intersection of West Parade and Victoria Road, West Ryde by providing extra lane on West Parade and additional pedestrian crossing across Victoria Road.
- Relocation of existing traffic signals on Victoria Road at Frank Street, Gladesville is proposed.
- A raised wombat crossing is proposed on Parry Street outside Putney Primary School, Putney.
- Construction of first phase of Parramatta to Chatswood Railway between Epping to Chastwood has commenced and it will be operational in 2008. All three stations will be underground and located in the Macquarie Park area.
- Upgrading of the West Ryde Railway Station is in progress and due for completion next year.

The above projects would assist in stimulating the shift from private car usage to public transport

Private Transport

- The efficiency of the operation of the arterial road network within the City is still a concern, especially Epping Road.
- The construction of the Lane Cove Tunnel and Orbital has commenced and is due to be completed in 2005/06.



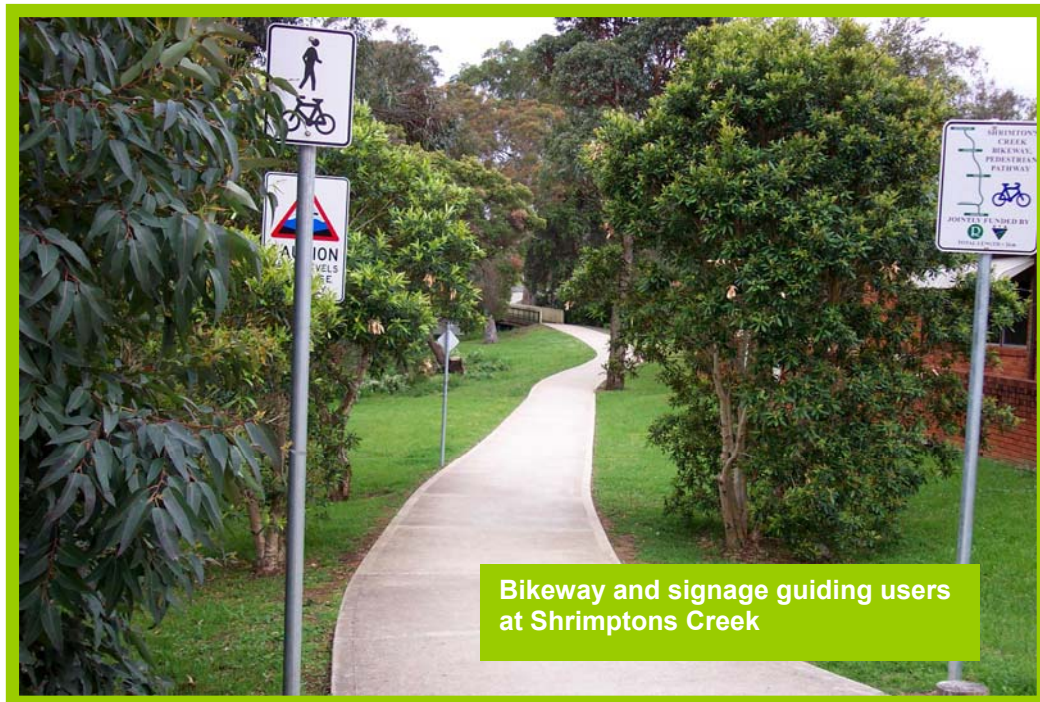
- The installation of traffic calming measures along selected local roads continues in order to reduce the impact of through traffic spill onto the local traffic network. Two new roundabouts were built in Gladesville to reduce speeding and improve efficiency of the intersections (Pittwater Road and High Street, Morrison Road and Western Crescent). Both traffic facilities were the outcome of the Pittwater Road and Putney-Tennyson traffic study.



- The City has supported policies to improve the attractiveness of public transport, walking and cycling, hence encouraging residents and visitors to rely on modes of transport alternative to private vehicles.
- A shared cycleway and footpath is planned on the south side of Epping Road between Wicks Road and Lane Cove River as part of Lane Cove Tunnel.
- It appears that the M2 Tollway has reduced traffic in some routes such as Rutledge Street, Lovell Road and Quarry Road however, traffic congestion on some arterial roads like Lane Cove Road now often extends beyond peak periods. Also Epping Road has shown gradual increase in traffic within last two years. Recent traffic counts indicates that regional roads like Balaclava Road and Pittwater Road carries about 16 000 AADT.

Cycling

- The City continued to implement the City of Ryde Bikeways Plan. The Talavera Road (Herring Road to Khartoum Road) and the Shrimptons Creek Bikeway near Waterloo Road were completed during the year. Last year's SoE Report showed a map of cycleways in the City of Ryde however this is now outdated. A new and revised cycleways map is being developed and will be included in next year's comprehensive SoE Report.



- To encourage cycling the City of Ryde has incorporated requirements for showers and bicycle lockers in development control plans. DCP No. 38 Meadowbank Employment Area and draft DCP No. 40 Top Ryde Urban Village 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. DCP No. 29 A (adopted 17.1.03) Car Parking will require bicycle lockers and shower facilities for all larger developments.

Macquarie Park/North Ryde Transport and Traffic Project

In 2000 the State Government announced the construction of a new rail link between Parramatta and Chatswood, which would pass through the Macquarie Park Corridor. As a result of this new rail link and the economic importance of the Corridor, the City of Ryde joined forces with the State Government to undertake work to achieve local and regional planning outcomes for the Corridor.

The objectives were to:

1. Develop a strategic vision for the area
2. Identify development scenarios consistent with the vision
3. Determine the preferred development option and prepare a Structure Plan
4. Develop transport solutions for the area
5. Develop a detailed Master Plan

6. Implement and manage project outcomes.

As part of the future development of the Corridor, a Transport Management and Accessibility Plan has been developed. This Plan developed a package of measures to be implemented aimed at:

1. Upgrading pedestrian and cycleway facilities
2. Managing the demand for car travel
3. Making interchanging between the various modes of transport as convenient as possible
4. Supporting the new rail link
5. Preserving the longterm road accessibility of the area.

The City of Ryde has continued its policy of improving safety and traffic flow at the most critical locations in the City. Traffic calming measures and blackspot programs has improved safety and amenity in the City's road system.

Accident statistics will be monitored continuously and the priority list for improvements updated when more recent information becomes available. The RTA has supplied accident data for year 2002.



50 km/hr Urban Speed Limit and Slow Down in Ryde Project

The 50km/h general urban speed limit remains in force including all collector roads, but excluding the industrial precinct in North Ryde.

The City has purchased a Speed Monitor III to raise awareness of road users to the speed they are travelling. Public education campaigns are followed by enforcement.

The NSW Police Service is working in conjunction with the City in the 40km/h School Zone and 50km/hr speed education/enforcement exercise. NSW Police have also supported the program through enforcement, and due to the positive effect the program will run continuously in the future adding to the program 40km/h council road work zones.

From 1 November 2002 all residential streets in the City of Ryde will be 50 km/h unless sign posted. This was the recommendation from Stay Safe Committee to the Minister for Roads.

Road Safety

Local Government has a major role in increasing community understanding of road safety and initiating road safety improvements at the local level.

The Local Government Road Safety Program includes the RTA, the Local Government and Shires Association (LGSA), the Institute of Municipal Engineering Australia (IMEA) and City Road Safety Officers.

Road Safety Officers within the City provide a means of identifying local road safety problems and population groups who are particularly at risk or who cannot be reached readily by mass media.

Safety Before Convenience - Illegal parking campaign

The Safety Before Convenience campaign was initiated following many complaints to the City of Ryde Traffic Committee. The community was concerned that illegal parking and poor parent behaviour around schools was endangering the lives of our school children.



The campaign visited all 22 primary schools within the Ryde LGA during 2002/03, and directly targeted parents of over 7 800 primary school aged children.

The three elements to the campaign were education, engineering and enforcement. The local media assisted in delivering the campaign message, including news stories and mayoral articles, and several Ryde City News articles. Increased patrols by City Rangers and the NSW Police at the schools reinforced the campaign message through warnings and infringements.

An evaluation of the campaign resulted in positive feedback and a recommendation for it to be continuous running campaign.

Future Actions

- Continue to develop the bikeways network.
- Develop an integrated transport plan.
- Conduct the “Slow down your moving too fast “ Regional speed reduction education program.
- Conduct the “40Km/h council road work zones” Local speed reduction education program
- Conduct the “Choose a sober driver” Joint drink drive educational program
- Conduct the “Safety before Convenience” Local pedestrian safety education program

- Conduct the “Fatigue” Local short distance driver fatigue project
- Conduct the Seniors Week Local pedestrian safety education program
- Promote “Occupant Restraints” Local safety restraint fitting days
- Facilitate Graduated Licensing Scheme Workshops for Parents and Carers of learner drivers
- The City of Ryde to actively take part in the introduction of light rail into the Macquarie Park Corridor linking North Ryde to Epping, Chatswood and the Sydney CBD.

Management Plan 2002/03 Progress Summary - Transport

Objective	Strategy	Measures/Targets	Progress
		Funding sought for the traffic calming of the precinct south of Victoria Road and east of Church Street.	Completed. \$100 000 funding was allocated by the RTA.
		Support for Sydney Orbital route and expedited link between M2 tollway and Gore Hill Freeway continued.	Ongoing. The City has continued to support the construction of the Sydney Orbital Route and the Lane Cove Tunnel. The City will comment on the proposed link between the M2 tollway and the F3 expressway when it is exhibited next year.
		Safety improvement by appropriate traffic facilities for black spots and traffic calming continued.	Works are proceeding to schedule. 3 roundabouts completed in the Putney/Tennyson area and 2 in Darvall Road. 2 raised wombat crossings completed in Kent Road. 2 bikeways completed, one along Pittwater Road near Magdala Park and the other along Shrimptons Creek near Waterloo Road.

Objective	Strategy	Measures/Targets	Progress
		Funding sought to implement Top Ryde Retail Precinct.	The adoption of the Top Ryde Urban Village under LEP 123 is pending a traffic study by the RTA. Request for funding ongoing.
	Encourage the increased use of public transport.	<p>The development of public transport facilities to reduce car dependency, pollution and congestion supported.</p> <p>Strategies in North Ryde/Macquarie Park precincts affected by the Parramatta-Chatswood Rail Link developed.</p>	<p>Traffic and public transport initiatives are considered in relation to Town Centre Improvement Plans. Eg the Macquarie Park Corridor Master Plan has incorporated a parking and public transport system to encourage changes in travel behaviour and reduce dependency on the use of cars.</p> <p>Following the adoption of the Structure Plan and the TMAP for the Macquarie Park precinct in Dec 2002, a draft Master Plan was developed to integrate landuse and transport planning and to create employment in areas supported by public transport.</p>

Objective	Strategy	Measures/Targets	Progress
		Implementation of transport facilities in the Eastwood and West Ryde commercial areas supported.	The City is encouraging development and transport initiatives including interdependence on existing rail and bus networks linked to the expansion plans for the West Ryde and Eastwood precincts.
	Encourage the use of bicycles in a safe environment.	Existing bicycle network upgraded and maintained.	Ongoing to program.

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Chapter 6 – Soil and Landscape



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6.1 Soil Erosion

Most land degradation associated with urban development in coastal NSW results from erosion by water and consequent sediment pollution to downslope lands and waterways. Other pollutants are often associated with the sediment, including nutrients, pesticides, weed seeds and other contaminants.

In particular, rates of water erosion are likely to be high wherever the vegetative cover has been disturbed and/or water has been artificially concentrated. The problem remains a serious threat to the environment and is one for which local action can be taken at the source to control this loss.

Goal

To minimise land degradation and sedimentation of waterways in the City of Ryde local government area.

To ensure that building sites in the City of Ryde local government area have adequate erosion and sediment controls.

State

Land degradation is one of Australia's most serious environmental problems.

In the City of Ryde soil erosion problems normally result from building development that have not been properly controlled.

Wind or water erosion from unprotected sites results in loss of topsoil 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.

In the current reporting period the City of Ryde received 33 complaints concerning inadequate erosion and sediment controls on building sites.



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.
- Intensive and sustained rainfall events often breach sediment control measures.

Response

- All new developments are now required to have sediment and erosion control plans in accordance with the City's new Construction Activities DCP No. 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.
- The City of Ryde imposes appropriate erosion and sediment control conditions on all development consents for building work. In addition, City Building Surveyors assess the adequacy of sediment controls when carrying out building inspections and investigate complaints concerning inadequate sediment controls.



Future Actions

- Investigate how the City of Ryde can better enforce sediment and erosion controls on building sites.

Management Plan 2002/03 Progress Summary – Soil Erosion

Objective	Strategy	Measures/Targets	Progress
	Control pollution.	Appropriate resources be allocated for sediment control and its enforcement.	Strategy in progress. Environmental Health Officers currently undertake enforcement under PoEO Act 1997.

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6.2 Acid Sulfate Soils

Acid sulfate soil (ASS) is regarded as a key environmental threat in NSW. ASS is the common name given to soil and sediment containing iron sulfides (principally the mineral iron pyrite or the products of the oxidation of sulfides).

ASS exist in thousands of square metres of coastal land in Australia and cause a problem when sediments are exposed to air and become acidic. The impact on soil and water quality in these regions has caused increasing concern to developers, scientists and farmers over the years.

Significant areas of land adjoining the Parramatta and Lane Cove Rivers have been identified as being affected by ASS.

Goal

To identify and manage ASS in the City of Ryde local government area.

State

The areas affected within the City of Ryde are broadly shown in following map. The community can view larger maps held at the City of Ryde Administrative Offices to determine more clearly extent of affectation.

Excavation or drainage of acid sulfate soils may result in acid runoff to waterways. Environmental impacts associated with acid runoff include fish kills, destruction of fish habitat and loss of biodiversity. Acid corrosion may also damage buildings and infrastructure.

Pressure

- Development of land affected by ASS may result in the disturbance of soils.
- ASS are expensive to treat and dispose of.

Response

- Council considers potential impacts associated with ASS when assessing development applications for building work on affected land.
- Council includes information about ASS on Section 149 Planning Certificates.

Future Action

- Review policies and strategies for managing land that are affected by ASS

Management Plan 2002/03 Progress Summary – Acid Sulfate Soils

Not specifically mentioned in the Management Plan.

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6.3 Land Contamination

Human activity and natural occurrence have resulted in sporadic pollution and contamination of land in many areas of Australia.

Contamination may have arisen 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 that may result in contamination include the manufacture or storage of chemicals, service stations, automotive workshops, nurseries and market gardening and burial of industrial/commercial waste.

The identification of such contaminated land requires vigilance on the part of owners, developers, potential purchasers and regulators to identify potential risks to human health and the environment. A considered appraisal of identified risks is required for each individual circumstance.

Goal

State

Remediation of contaminated land in the City of Ryde 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.

Contaminated Sites	
Sites regulated under Contaminated Land Management Act 1997	0
Number of notifications for Category 2 Remediation Work	3
Number of Site Audit Statements received	2
Sites declared as unhealthy building land (gazetted as low lying)	1

Pressures

- The area of land requiring remediation is likely to increase as more industrial land is rezoned for residential use to meet demands.
- Incomplete data gaps and records kept.
- Illegal activities and land use that may have contaminated land without knowledge of regulatory authorities.

Response

- 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
- Contaminated land is managed under environmental legislation including the *Contaminated Land Management Act 1997*, the *Environmental Planning and Assessment Act 1979* and the *Protection of the Environment Operations Act 1997*. State Environmental Planning Policy No 55 is the planning instrument that specifies when development is or is not required for remediation work.

Future Actions

- Review policies and strategies for managing land contamination and develop an appropriate Development Control Plan to assist owners, developers, prospective purchasers, remediation consultants, independent auditors and Planning Officers.

Management Plan 2002/03 Progress Summary – Land Contamination

Not specifically mentioned in the Management Plan.

However, within the 2003-2006 Management Plan the City of Ryde has allocated funds for works associated with the demolition and remediation of the Wellington Road Works site and the Parsonage Street Works site.

Both sites have been identified with levels of contamination above EPA guidelines, and remediation plans for both sites are currently being prepared. It is anticipated that remediation of both sites will proceed in 2004-2005

Conclusion

This report was prepared to provide the community of Ryde with supplementary information about the state of the local environment for the period 01/07/02 to 30/06/03.

The environment of Ryde has remained relatively stable from last year's report and any environmental changes continue to be effectively managed by specific City programs.

Population growth, the wasteful behaviour by sections of the community, an aging infrastructure and planning changes are putting increased pressures on the local environment that will require constant monitoring.

The City of Ryde will continue applying the principles of ecologically sustainable development in all local area decisions to ensure that balance between the built and natural environments is maintained.

With the implementation of new strategies, programs and regular enforcement and community awareness programs, the City of Ryde can make progress in its aim of ensuring the environment we live in today will also be livable in the future.

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