



City of Ryde Mayor, Cr. Ivan Petch

Mayor's Message

Welcome to the Annual State of the Environment (SoE) Community Newsletter!

This community newsletter features a range of interesting environmental projects coordinated by the City of Ryde, for the benefit of its residents, schools and businesses. It is interspersed with tips and information to help you learn about sustainability, engage with Council activities such as guided nature walks and advisory services, and enjoy your surrounds in a region nestled between the magnificent Parramatta and Lane Cove rivers, that merges nature and culture, to bring the benefits of both, 'at your doorstep'.

We depend on our environment with every breath we take, and need to remember not to take it for granted, as its very health depends on our choices, as a community and as individuals. I encourage you to be 'environmentally aware' in your every-day decisions at home, work and play.

This year's publication details case studies on personal mobility devices, our free community bus service, world environment day events, tree planting activities, the new community nursery, sustainable procurement, e-waste collections, a home sustainability advisory service and more.

I hope you enjoy reading this newsletter.

Talk to Us

We would like to hear your comments on this Community Newsletter, our regional State of Environment (SoE) report and the environmental programs detailed within. To make a suggestion or comment go to the SoE comments

box at www.ryde.nsw.gov.au/soe

You can view the regional SoE repor at www.ryde.nsw.gov.au/soe or find a hard-copy at any City of Ryde library.

We encourage you to make use of the opportunities made available by the City of Ryde to learn about and enjoy your environment, participate in workshops, guided walks, consultations etc. and take positive steps towards sustainability in your home, work-place and community.



Regional SoE 2011-2012

See our website **www.ryde.nsw.gov.au** or call customer service on **9952 8222** for details.

Learn. Care. Enjoy!



City of Ryde Water Catchment Map with stormwater drainage networks

To see reports on water quality monitoring in Ryde over the last 7 years see www.ryde.nsw.gov.au/
Environment/Water+Quality+and+Pollution

Did you know... There is 32.6m² of Open Space per person in the City of Ryde.

See the Regional SoE report to compare the area of Open Space per person and other statistics, across 7 Councils of the Northern Sydney Regional Organisation of Councils

(NSROC) - www.ryde.nsw.gov.au/soe

state of the environment 2012

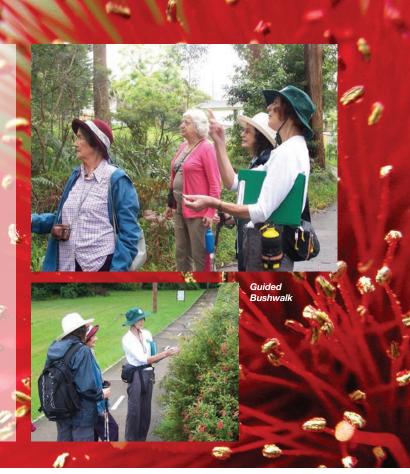
City of Ryde Guided Walks

The City of Ryde has been running a guided walks program across Ryde's popular landmarks since 2010. Each walk has a unique theme and runs for approximately two hours. Themes include children's tree planting in Waterloo Park, indigenous wildlife at Glades Bay, photography and ferry walks along the Ryde River Walk.

This program primarily targets people over 50, however during the school holidays, the walks also attract families with children aged 10 and under.

Participants walk through a set route which exposes them to Ryde's local flora and fauna. It's a good chance to get outdoors, learn about the local wildlife and just have fun.

To find out about future walks, contact customer service on 9952 8222. Walks are advertised in the City View newsletter and Council website on www.ryde.nsw.gov.au/Recreation/Walking



"The Habitat" Community Nursery and Food Garden



Building food garden beds and planting at the new community nursery



First workshop of new community nursery



Gardening across generations at 'The Habitat'

City of Ryde, in conjunction with The Habitat Network, has initiated a Community Nursery and Food Garden. This project aims to encourage Ryde locals to participate in volunteering and educational activities.

The Habitat Community Nursery and Food Garden is situated in the Southern end of Santa Rosa Park, at Quarry Road. The Nursery aims to propagate Ryde local native plants, and these will be available for purchase by the general public, encouraging locals to provide habitat in their gardens, primarily for small birds. The Nursery also propagates seedlings to be used in the Community Food Garden.

The Community Food Garden aims to encourage locals to participate in growing food that is available for the community to use. These gardens are accessible to the community at all

times, however regular working days are held on Wednesday and Saturdays from 10am – 4pm.

The Habitat aims to encourage and assist the community to provide better wildlife habitat in their local area and grow their own food. For more information

see www.habitatnetwork.org



Victor Dominello MP, City of Ryde Mayor Ivan Petch and other guests at the official opening ceremony



Macquarie Park is considered the northern anchor of the Global Economic Corridor and has been identified in the NSW Government's Metropolitan Strategy as a specialised employment centre. Macquarie Park is not

> only important to the City of Ryde, but also to the broader NSW economy.

Macquarie Park (and Riverside Park) is home to some of Australia's largest employers, including Optus, Fuji Xerox, Johnson & Johnson, BOC, Microsoft,

> Macquarie University, AstraZeneca, Foxtel, Siemens and Sony. With the Macquarie Park Corridor expecting to double in size and

The TMA aims to:

- Build a collaborative platform for local businesses to partner with government agencies and transport providers to improve the efficiency and sustainability of the transport network.
- Reduce demand for peak-period private vehicle travel by expanding multi-modal access and off-peak access.
- Expand the number of businesses and institutions supporting and delivering workplace based transport programs.

Businesses and institutions that join the TMA will have the opportunity to benefit from the economies of scale of being part of joint programs, partnerships and initiatives which address traffic and transport issues in Macquarie Park.

Transport issues are complex; requiring a shift in thinking. The Macquarie Park TMA is an exciting response to these issues and challenges.

For further details contact:

Andrew Parker,

Employee Experience & Transport Manager, Optus Phone 02 8082 6990 Email andrew.parker@optus.com.au

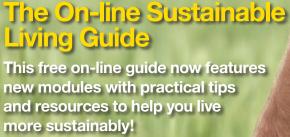


To address the traffic and transport issues in the Macquarie Park Corridor, City of Ryde, in partnership with Transport for NSW and the local business community, has established NSW's first Transport Management Association (TMA).



state of the environment





www.ryde.nsw.gov.au/slg

Vorld Environment Day 2011



City of Ryde celebrated the United Nations World Environment Day (WED) on the week commencing Tuesday 5th June. Three free public workshops and a staff initiative based on the 2011 theme University, attended by 130 University, TAFE and senior High School students.

The well received event featured talks by inspirational and experienced professionals, from Local and State Government, an NGO, corporations and academia. Each speaker's talk was filmed and can be viewed in you-tube, see www.youtube.com (type 'Careers for the Environment Macquarie University' in the search box).

The WED celebrations also included public and staff workshops on Ethical Investment and Superannuation, featuring speakers from Australian Ethical Investment

and Superannuation and the Responsible Investment Association of Australasia (RIAA). A public talk on Sustainable Home Design and Renovations was also held, featuring an expert from Envirotecture and a Council planner.





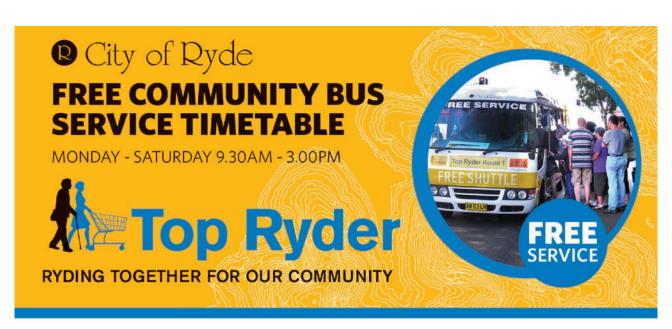
(top) Environmental Careers Seminar at Macquarie University (middle left) Richard Davies, National Parks and Wildlife Service Manager

(middle right) Sue Martin, Environmental Educator
(bottom left and right) Opening Address speakers representing the Macquarie-Ryde Futures Partnership*
(Prof. Richard Howitt, Professor of Human Geography and Director of the Macquarie-Ryde Futures Partnership and Dominic Johnson, City of Ryde Group Manager of Environment and Planning)

*For more information on the Macquarie-Ryde Futures Partnership see www.ryde.nsw.gov.au (search 'town gown partnership').



Eco Choices for



The Ryde of your Life - Top Ryder Community Bus Service

The Top Ryder Community Bus Service continues to be a popular service with over 55,000 passengers in 2011/12.

The service provides a free bus service to all five of the key centres in the City of Ryde, six days per week.

Strengths include:

- Good, reliable, on time service, operating 6 days per week
- A free professionally run service
- Users can 'hail and ride' from any STA bus stop on route
- Service is easily accessible to the aged and frail
- Buses are specially adapted for wheelchair users
- Buses are comfortable and attractive
- Bus stops at main retirement villages and destination points
- Bus stops are well signposted

Top Ryder Passengers for 2011/12







For more information on this free community bus service, and to view the timetable and routes, see

www.ryde.nsw.gov.au/TopRyder



state of the environment

River to River Corridors Project

The River to River Corridors Project is a 3-year urban wildlife corridor project, grant funded by the NSW Environmental Trust and the Sydney Metropolitan Catchment Management Authority, with the City of Ryde and Hunters Hill Councils as project partners. The project aims to reconnect fragmented and disconnected bushland, whilst establishing new and enhanced habitats for birds and other fauna, along two corridors between

the Lane Cove and Parramatta Rivers.

The project has utilised surveys of vegetation and ecological landscape, as well as a historical review of bird populations, to design and implement strategic corridor plantings, with bird population responses monitored in 40 sites before and some years after, plantings.

Education for wildlife habitat needs is instrumental in establishing vegetation connectivity across private land, which makes up significant parts of the corridors. A social values and ecological knowledge survey was distributed to 2,000 households within both Local Government Areas (LGAs) to directly consult community on their knowledge, interests and awareness of biodiversity and corridors.



Education has drawn on the survey outcomes, with the creation of a planting for habitat brochure, the commencement of a social media site and webpage development to assist landholders in understanding habitat needs of urban wildlife.

To date the project area has included more than 500

local community volunteers, planting over 12,500 plants in 16 corridor sites on community land, and at three schools across the two LGAs.

It also involved corporate and voluntary organisations. It is estimated that the project has assisted in the enhanced connectivity of over 670,000m² across the two LGAs. Over 1,200 households within the

corridors have been approached and offered free native plants of local provenance. They have also been invited to educational planting days.

To find out more about participation in the program, contact customer service on 9952 8222.

- 1. National Tree Day 2012 at Morrison Bay Park, Putney
- 2. Planting at St Joseph's College 2012, Hunters Hill
- 3. Corporate planting day 2012 (Novartis Employees), Field of Mars Reserve, Ryde
- 4. Community Educational Day 2012, Mallee Reserve, Gladesville



We have newly launched our social media page for the River to River project. Feel free to 'like' our page at:

www.facebook.com/ rivertorivercorridors

Habitat Friendly Gardens

This brochure was recently created for the River to River Program and provides information to assist landholders in understanding habitat needs of urban wildlife, in particular small birds, and how to choose native plants to create structurally diverse habitat gardens. Contact Council for a copy on 9952 8222 or see the online version at

Habitat-friendly



Home, Waste and Sustainability Advisory Service 2012

The Home, Waste and Sustainability Advisory Service builds on the achievements previously undertaken by the City of Ryde during 2011, to further promote the Home Power Savings Program.

This supplementary program aims to target an additional 500 households, including residential flats / units and Culturally and Linguistically Diverse (CALD) Communities over 2 years, offering a free advisory service to encourage sustainable living, efficient use of resources and improved waste management behaviour.

Council staff will connect with residents to help design tailor made sustainability solutions to their needs, targeting water and energy efficiency and improved waste management practices.

Residents can find more information about this exciting new program by contacting Council's Environment Unit on 9952 8222, or by accessing the website at www.ryde.nsw.gov.au/Environment/Sustainable+Living



The project will also provide access to Power Savings Kits, for residents to help them measure the energy used by appliances in their home. Residents can borrow kits through their local library or eligible

households can be issued with a Power Savings kit to their home as part of the Home Power Savings Program.

Residents can get more information about the Home Power Savings Program at the following website: www.savepower.nsw.gov.au/households/home-power-savings-program/about-the-program.aspx



E-Waste Collections

Electronic Waste and Televisions contain a large percentage of valuable metals and toxic wastes. Council is committed to implementing programs to reduce these materials from entering landfill.

As part of our Waste Collections contract, residents are able to contact Council's customer service to book in to have a kerbside collection of their E-Waste material. This has been very successful with over 500 bookings being taken during the financial year ending 30th June 2012, diverting around 18 tonnes of E-Waste from landfill.

Commercial properties with an existing Council waste collection service took part in a trial online booking service with 20 companies taking part and 1.7 tonnes of material collected over the 4 month trial period.

The Waste Team also embarked on an E-Waste recycling

program at schools within the City during National Recycling Week in November 2011. This event was aimed at not only removing the E-Waste from landfill, but also educating the students and their families of the benefits of disposing of these products correctly. The schools which participated in this event were, Putney, Eastwood Heights, St Charles, Ryde, Meadowbank, Hunters Hill and Ryde East Public Schools, with nearly 2 tonnes of redundant electronic waste being collected.

To ensure that staff within Council are also aware of the importance of removing E-Waste from landfill, an E-Waste collection event was held in March 2012 where staff were able to bring in old computers etc for disposal. Approximately 300 kgs of material was collected at that event.

A total of 22 tonnes of E-Waste were successfully recycled through these programs.



Waste Tours & Composting Events

The Waste Department holds a number of Community Events during the year to assist the community in understanding what happens to their waste and providing ideas of how they can reduce waste going to landfill. Some of these events include, waste tours and compost and worm farm workshops.

Five waste tours were conducted, with approximately 20 local residents participating in each tour. Participants were taken by bus to see the Eastern Creek landfill, (where their waste is taken to and disposed of); the Chullora Material & Recovery Facility, (to watch their recyclable material being sorted) and the Chullora Organics facility, where the greenwaste is processed. Residents found these tours very informative.



Five community compost and worm farming workshops were conducted during the year, which is a great way of engaging residents. Presenters show residents the best processes for setting up and running a compost bin or worm-farm. Composting is a great way of disposing of left-over food waste as well producing a great fertiliser



for the garden. The waste bin generally contains approximately 40% of food waste, so encouraging residents to use a compost bin or worm-farm helps them to do their bit in reducing waste to landfill. Council sells both compost bins and worm-farms

at Customer Service, at reduced rates, to encourage residents to compost at home.

Event bookings: www.ryde.nsw.gov.au/

wastebookings

General waste: www.ryde.nsw.gov.au/waste

Ryde Environmental Education Network (REEN)

School Environmental Management Systems (SEMS) and School Gardens Workshops.

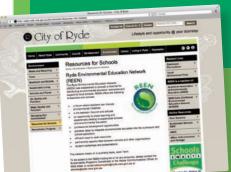
In May and June 2012, the Ryde Environmental Education Network delivered workshops for 7 local schools and preschools on developing School Environmental Management Systems (SEMS), School Sustainability Self-Assessments and building up eco-food gardens. The workshops involved a strong grounding in both theory and practice and were presented to 53 staff, 14 parents and 330 students over the two months to encourage an integrated, structured and cooperative approach to improving environmental sustainability in school operations and environmental awareness in the school community. This helped set a good example of sustainable living for future generations to learn from and follow.



Building veggie gardens at Meadowbank P.S.

Participant feedback...

I would like to pass on our thanks for this wonderful opportunity on behalf of all staff members, educators, children and parents. This was a great opportunity for our Pre-School as our outdoor environment was something on our Quality Improvements Plan we had listed as a high priority. The offer of the workshop came at the right time for us and the educators [were] eager to take the project on!



Luisa Lombardo, Director Imaginations Pre-school, Marsfield

REEN Website: www.nsw.gov.au/reen

'What you do Matters'

A Sustainable Living Tip for Each Day of the Week

Overall Tip

Be moderate, realistic and take small steps!

Changing habits of a life-time and making more sustainable choices can take some time. Don't expect too much from yourself too soon. One step at a time is often a good approach.

Sometimes the best choice is not always the clichéd sustainable living tip, and is dependant on your own situation, options, needs and priorities, as well as the needs and perceptions of people around you.

It may simply be a matter of being a little more aware and considerate, of the interconnected ecological systems we live in, in all that we do, and doing what we can.

Never underestimate the value of small considerate actions, on a cumulative scale in particular, they can have huge consequences.

Be kind to yourself and those around you on your sustainability journey!

Monday - Spend time in Nature

Nature is all around us, all the 'stuff' around us comes from nature ultimately, but there's something special about spending some relaxed moments surrounded by what isn't quite as manufactured. Take an afternoon to simply absorb the warm rays of the sun and gaze at an expansive ocean or enjoy a bushwalk at your local reserve or National Park and appreciate the endless wonder in even a simple flower or leaf. Just allowing your mind and body to rejuvenate, with fresh air and time for quiet reflection in nature, can be invaluable.





"To see the world in a grain of sand, and heaven in a wild-flower. Hold infinity in the palm of your hand and eternity in an hour".

- William Blake



Tuesday - Plant a Native Shrub or Tree

Important eco-systems and remnant habitat that link larger bushland areas are dependent on the plants and animals on private land, such as back yards.

With the trend toward larger homes and a growing urban sprawl, backyards are decreasing in size and habitats are disappearing. By taking simple actions to counter this trend and actively supporting and learning about your local ecosystems, you are helping to preserve our unique flora and fauna and the habitats they live in.

Preserve established eco-systems particularly older trees, select indigenous plants that provide food (flowers and fruit) for local birds, bats and possums (or food for the insects they eat), consider providing a water source such as a frog pond, water feature or bird bath, and install a wildlife box for nesting birds, bats and possums. Leaf litter and mulch, logs, even a pile of old bricks can provide important shelter for insects, lizards and other animals. Cats are a particular problem in the urban environment and it's important to restrict cats from entering your garden, particularly in the early morning and evening and make sure pets have bells on their collars.

Try to reduce paving areas of your back-yard as much as possible, as greater impervious (paved and sealed) surfaces affect ground-water recharge of aquifers and streams, as well as the erosion and pollution of waterways through storm-water systems.

For more information see the 'Nurture and Conserve Biodiversity' and 'Grow an Indigenous Garden' modules at www.ryde.nsw.gov.au/slg and the Habitat Guide in www.ryde.nsw.gov.au/Environment/Bushland+and+Wildlife

Wednesday - Try Composting your Food Waste

This can be one of the most satisfying and simple ways of reducing your negative impact on the planet. At least 40% of the average waste bin comprises of food scrapt that go to landfill and contribute to ammonia leachates that pollute out waterways, methane gas production (a major greenhouse gas) and increased land used for landfills. For waste is often disposed of in plast bags which (unlike the food) can hundreds of years to fully degrade and contributes to landfill, litter a water pollution problems.

Composting can take different for and you may be surprised at how quickly food decomposes and how long a compost bin can last with little maintenance. There is no not of to 'empty' the bin unless you want to use the nutrient rich compost your garden. A simple and impost your garden. A simple and impost pis to layer the 'wet' food scrawith 'dry' matter such as leaf lift keep it balanced. A well function compost pit or bin should not so You can aerate it occasionally waspade where required.



For more tips and information www.environment.nsw.gov.al households/EasyCompost.htm

Thursday - Practice Chemical Reduced Living

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We live in an age of chemical overload that is affecting our health and the habitats and ecosystems around us. From infertility to allergies, the chemicals in the products we use can make us sick. The detergents we use end up in our waterways from sewerage overflow systems etc affecting the water chemistry for aquatic life. Components such as the optical brighteners that make our clothes appear brighter for example, remain in the environment for prolonged periods. Pesticides and fertilisers also move around after heavy rainfall and pollute our streams. There are often milder, cheaper and more natural alternatives to the cleaning and cosmetic products we use. You can even make your own with simple ingredients such as using olive oil for wooden furniture polish, adding a few drops of your favourite essential oil in a spray bottle of water for air freshener and mopping the kitchen floor with diluted white vinegar. Mixing avocado with a dash of honey and a few drops of cider vinegar makes a great nourishing natural face mask, and combining Besan (chickpea) flour with a bit of water to make a paste, makes a fantastic exfoliant cleanser that is a good soap alternative for dry skin. Consider and enquire about what chemicals are in the products that you use and how it affects your health and environment. For more info see the 'use non-toxic cleaners' module in the 'Goods' section of www.ryde.nsw.gov.au/slg and see www.safersolutions.org.au A great user-friendly guide: The

Australian Guide to Clean, Green

Living by Rosamond Richardson

(2003) Dorling Kindersley Ltd

Friday - Go Easy on Plastic Bags, Packaging and other Plastic Disposables

Imagine the difference you could make by using re-usable cutlery and crockery instead of something you use once and throw-away. It's a huge waste of the energy and petroleum that went into its manufacture and their relatively non-biodegradable (slow to break down) nature, means the plastic disposables become a major waste management problem. On the 16th of May 2012, Tim Silverwood, an Australian surfer and the co-founder of the Take 3 Clean beach initiative visited Ryde to speak about his expedition to the 'Great Pacific Garbage Dump' in the middle of the Pacific Ocean. Oceanic currents gathered a mass of plastic waste in an area estimated to be up to 15 million km² and the waste is impossible to collect as the plastic has partially broken down it to a 'soup', sometimes eaten by marine wildlife that die as a result. Plastic bags are often found in local waterways and easily blow away from littering, overflowing bins and even landfill sites, ending up in the ocean, This litter is sometimes washed back on to our beaches and shorelines. For an interesting documentary on the issue of plastic waste see: http://www.bagitmovie.com/ For more about Tim's initiative to reduce plastic waste see http://www.take3.org.au/

Saturday - Grow your own vegetables

Would you like to eat fresh food that's good for you and the planet? Get into gardening in your own backyard.

Much of the food we eat has travelled hundreds, even thousands of kilometres to get to us. Creating a food garden at home or in your local community is a simple and effective way to reduce your impact on the environment. It will also allow you to experience the pleasure of growing your own food - there's nothing like exploring your own fresh veggie patch for your meal. You'll also enjoy the taste of pesticide-free and truly fresh food that's better for your health and vitality, and save on your grocery expenditure.



For more information on how to start, see the 'Grow your Own Food' module in the 'Garden' section of www.ryde.nsw.gov.au/slg

Also see the 'How To Info Sheets' section of the 'Interesting Stuff' tab of http://old.permaculturenorth.org.au

A good guide to planting according to seasonality: http://www.edenseeds.com.au/content/planting.asp

If you can't grow your own
vegetables, try a smaller herb garden,
even a few pots of your favourite
herbs at the kitchen sink or try
buying seasonal, local or organic/
pesticide-free products.

http://seasonalfoodguide.com/
More locally grown, seasonal

food can sometimes be sourced at farmer's markets see: www. farmersmarkets.org.au

Sunday – Drive a Little Less, Walk and Cycle a Little More

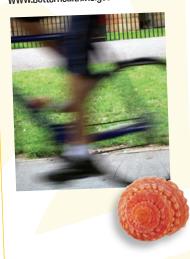
Many car trips are for relatively short distances, and can easily be substituted for cycling and walking. Where it is safe to do so, those modes of transport have the additional benefit of providing exercise and improving your health.

Extraction and transportation of fuel and the exhaust emissions that result from their combustion, have significant environmental impacts.

For more information see the 'transport' section of www.ryde.nsw. gov.au/slg

Make sure you are aware of the RTA cycling rules and road safety tips: www.rta.nsw.gov.au/roadsafety/bicycles

The Green Vehicle Guide can help you compare the fuel efficiency of different makes and models of cars, see: www.greenvehicleguide.gov.au Also see 'Walking for Good Health' at www.betterhealth.vic.gov.au/bhcv2







Personal Mobility Devices (PMDs) – A Sustainable Transport Solution for Ryde

The congestion produced by multiple short trips is an issue that has proved intractable for transport planners in sites such as Macquarie Park, in the Ryde Local Government Area.

A You Tube Video was produced by the City of Ryde showing a potential solution to this problem. See **www.youtube.com** (search for 'improving transport in urban areas, personal mobility devices'). This video has been viewed world-wide and has met with plenty of keen interest and support.

As a result, a project has now commenced between the City of Ryde and Macquarie University (under the





Macquarie—Ryde
Futures Partnership),
that will conduct
a multi-faceted
feasibility study of
the incorporation of
Personal Mobility
Devices (PMDs) into
travel usage and
transport planning in
multi-user areas.

You Tube Video of Ryde PMD proposal

Use of PMDs -

powered devices that allow the user to travel short distances quickly and to transfer between transport modes – is emerging as a possible solution and there is solid evidence to suggest "the missing distance" (800 m to 5000 m), can be a leverage point to start changing our dependence on cars and their associated problems (parking, pollution, infrastructure costs, social inequity).

This project is aimed at showing that PMD's can fulfil a viable option as an alternative vehicle and be easily used on existing pathways (without any major physical or financial infrastructure requirements), to traverse those distances involving short trips to shops, schools, appointments, recreational and other activities, which represent 61% of all trips in Sydney.

The problem is that PMD's are currently illegal in Australia for use on footpaths and existing pathways, and the City of Ryde is lobbying for the introduction of legislation to allow the safe use of PMD's, to align the Australian legislation with international standards and regulations.

This project has currently garnered unparalleled support from key government agencies on the basis that it will directly inform the development of national policy and regulations in the area of alternative vehicles.

On completion, the project will be of broader significance in that its findings will shape the development of regulations governing alternative vehicles; including PMD's and provide guidelines for other local governments and/or precincts addressing the question of short journeys in congested locations.

Some examples of PMD's to be tested under this project are depicted below and for any further details contact Sam Cappelli, Manager, Environment, from the City of Ryde.



Meadowbank Park Stormwater Harvesting and Re-use Scheme

Meadowbank Park is one of the City of Ryde's premier parks, and one of Council's largest water users. To ensure that water use is conserved, the City of Ryde installed a stormwater harvesting and re-use system within the park. In doing so, Council will reduce the demand on potable water for irrigation purposes. The harvesting and re-use scheme comprised of three stages including the installation of a gross-pollutant trap, the construction of water storage tanks and the construction of the water treatment and reticulation system.

The project provides a more sustainable source of water for irrigation and has reduced water usage. It also incorporates a Gross Pollutant Trap (GPT) which traps large pollutants such as coarse sediment, organics and litter. This means the stormwater discharging to the Parramatta River is being cleaned and the water also undergoes further filtration and disinfection before being used for irrigation. During low flow conditions, 100% of gross pollutants are captured with a mean pollutant removal rate of approximately 70%.

The project was able to address and satisfy the requirements of the major stakeholders. The integration of a reuse system, water quality improvement, aesthetic considerations and economical robustness resulted in an innovative system that will provide tangible benefits to the City of Ryde community.



Storage Tanks

9



Meadowbank Stormwater Re-use



Control Pane

Low Carbon Growth Plan for the Macquarie Park Precinct

Macquarie Park is set to experience unprecedented growth over the next 20 years from 77,000 to 210,000 residents and workers. The demand on resources and space will be significant. In August 2011, Climate Works Australia in collaboration with the City of Ryde, the NSW Office of Environment and Heritage and members of

Low Carbon Growth Plan for the Macquarie Park Precinct

the Sustainability Working Group of the Macquarie Park Business Forum developed a Low Carbon Growth Plan for the Macquarie Park Precinct.

The Plan aims to assist the Macquarie Park community to identify a range of cost effective actions that will reduce energy consumption and greenhouse gas emissions.

Key findings of the report: Building owners and tenants in the

Macquarie Park precinct can significantly reduce their energy use - and hence the amount of money spent on energy bills - between now and 2020 using a range of widely available technology and solutions that can be implemented at relatively low cost.

For Macquarie Park's commercial buildings:

- \$24.4 million could be saved per year by fully implementing the opportunities identified by ClimateWorks Australia. This would also reduce the precinct's greenhouse gas emissions from commercial buildings by 42% each year.
- Three quarters of all opportunities can save money, even after taking into account upfront costs.
- While the largest overall energy savings can be found by retrofitting buildings in the Offices and Education sectors, all of Macquarie Park's existing buildings can benefit from substantial energy savings of between 21% and 42%.
- Macquarie Park can also reduce its dependence on grid supplied electricity by 27,900 MWh each year through the installation of cogeneration and mid-scale solar PV.
- A carbon price associated with Australia's 5% emissions reduction target would increase the volume of profitable opportunities available to Macquarie Park's businesses by 28%.

For more information the plan can be accessed at:

www.ryde.nsw.gov.au/Environment/
Sustainable+Living/Sustainable+Business/Macqu
arie+Park+Precinct+Low+Carbon+Growth+Plan

Sustainable Businesses in Ryde 2012

The Sustainable Businesses in Ryde Program has been developed in collaboration with Sydney Water and the Office of Environment and Heritage (OEH) to assist businesses to reduce water and energy consumption and increase recycling, while remaining profitable. The program encourages businesses to reduce energy and water use and subsequently the associated costs, as a sensible financial and business investment.

The program targets small to medium businesses using between 10–80 kilolitres of water a day.

There are hundreds of businesses that fit into this criteria, representing a diverse cross section of business types across the City.

The program began in early 2010 and aims to:

- reduce water use by 15% at each business,
- energy by 10% and
- increase the recycled content of waste materials to 57%.

As at July 2012 the program has:

- Over 40 businesses participating in the program
- Identified water savings of over 300,000 litres per day for the participating businesses, and an average of 42% reduction in water use.
- Achieved an impressive 200,000 litres of implemented water savings per day for participating businesses.
- Represented \$320,000 in savings from water bills for participating businesses

Many businesses are also engaging with the many OEH energy saving programs available, including Sustainability Advantage and Energy Efficiency for Small Businesses Program, receiving subsidised energy audits and undertaking NABERS rating for their buildings.

The program is being expanded across the City, with more businesses being approached to participate and realise similar savings.

For more information and updates on progress go to www.ryde.nsw.gov.au/sustainablebusiness

Strangers Creek Rehabilitation & Bioretention Basin

The City of Ryde has undertaken waterway rehabilitation and improvement works at Strangers Creek, Ryde. The project consisted of the construction of a bio-retention basin and creek rehabilitation.

A section of Strangers Creek was identified as needing rehabilitation due to retaining walls and other structures adjacent to the creek becoming unstable, with a risk of damage to people and property. The highly erodible and unstable nature of the channel was the primary cause. Rehabilitation works were in the form of rock armoury and riparian zone re-establishment.

In addition to the waterway rehabilitation, Council staff identified an opportunity to improve stormwater quality through the construction of a bio-retention basin. The basin was designed and constructed by Council staff and functions by filtering pollutants out of the stormwater using densely planted surface vegetation to absorb excess nutrients and percolating the water through several layers of filter media. The media treats the stormwater through fine filtration, absorption and biological uptake. The treated water is then collected in slotted under-drains and diverted back into the creek.

The project was successfully completed and natural flora and fauna have started to flourish.



The rehabilitated creek with vegetation starting to grow.



The completed bio-retention basin.



As a means of promoting City of Ryde's Sustainable Procurement policy and practices, a number of Sustainable Procurement training and consultation workshops were held in April 2012 for staff across the organisation.

They were facilitated by the Local Government and Shires Association's, Sustainable Choice program and followed a staff survey that identified a need and interest in further training. The workshops delivered at both the Operations Centre and Civic Centre included the following topics; an introduction to sustainable procurement; how to integrate sustainable procurement into Council initiatives; life cycle costing and value for money; and assessing supplier claims.

The interactive workshops encouraged staff to explore ways in which they could consider sustainability concerns with regard to the specific procurement needs of their own roles and departments. It helped foster a greater understanding and sensitivity to the wider social and environmental impacts of procurement decision-making and generated new ideas and a renewed interest in an existing policy. Post workshop surveys indicated a reasonably high level of staff satisfaction with the preliminary training they received.

You can learn more about buying more ecologically sensitive goods and services for your home and work from the City of Ryde online Sustainable Living Guide.

See www.ryde.nsw.gov.au/SLG

The LGSA Sustainable Choice website with its extensive database of eco friendly suppliers and information is also accessible to the public at

www.lgsa.org.au/sustainablechoice

This colourful, summarised, easy to read, fold out cubicle attachment version of the Policy was given to each participant





The LGSA Sustainable Choice website

Energy and Water Saving Initiatives

Council has committed to reducing greenhouse gases and raising the energy efficiency of all services. From 2003/04 to 2011/12 energy usage across Ryde properties has reduced by 11.9% (not including streetlighting). This has been brought about through the implementation of actions included in its Energy Saving Action Plan including installation of building management systems, replacing halogen lights with LED lights, trialling the use of plugwise energy management software and behavioural change programs.

Council has been implementing a range of water saving initiatives as part of its Water Saving Action Plan. From 2003/04 to 2011/12 Council has achieved a 25.9% reduction in water usage through a variety of water saving initiatives such as converting the RALC water treatment system from ozone to UV, water recycling systems, installation of rainwater tanks, dual flush cisterns, installation of flow restrictors and leak repair. In 2011/12, actions undertaken to reduce water consumption include

installation of a range of water saving fixtures recommended by a Sydney Water BizFix audit at the Ryde Aquatic and Leisure Centre and Ryde Civic Centre; the installation of real time web based monitoring of water meters at a number of parks and completion of park irrigation and landscape efficiency project audits.



Ariel view of the Ryde Aquatic and Leisure Centre Building Complex





Inside the Ryde Aquatic and Leisure Centre

Waste-to-Energy Project

- Minimising Transport and Fossil Fuel Use

Household waste shouldn't be sent to landfill at high cost if it can be reduced on site and potentially converted to energy. City of Ryde, in partnership with Macquarie University has completed a scoping study of available household-scale, waste-to-energy technologies and will now take the investigation a step further. The next phase of our mission is to refine the concepts identified and evaluate the design of a viable household-scale waste reduction / green energy installation. This may utilise one or more of waste conversion, solar heating and power and other 21st century household energy supply technologies. The proof however will be in the pudding (or perhaps conversion of pudding leftovers into energy), and such a design would subsequently be built, tested and economically evaluated.





The Field of Mars Reserve - A Peaceful Piece of Nature in Suburbia

The Field of Mars Reserve includes 51 hectares of nature reserve adjacent to the Field of Mars cemetery in Ryde. It can be accessed from Pittwater Road, North Ryde and features bushwalking tracks (part of Buffalo Creek walking trail and Great North Walk), toilets, picnic areas and a wildlife refuge.

Maps of local bushwalks can be found in signage on site, close to the car park and at a Visitors Centre run by volunteers of the Ryde-Hunters Hill Flora and Fauna society.





The NSW DET Field of Mars Environmental Education Centre is also located on the site and provides a great range of environmental education resources and workshops for local public schools – see www.fieldofmar-e.schools.nsw.edu.au

Council Bushcare Volunteer Program 2011/12 Snippet

	Volunteer Numbers	Hours	Value @ \$25/hr
Bushcare volunteers	150	4553	113,825
Corporate volunteers	305	717	17,925
Total	455	5270	131750



Sustainability Definitions

Embodied Energy – This is a term used to describe the energy used to manufacture or build a product, vehicle, building etc. In calculating the overall relative energy costs with regard to greenhouse gas emissions for example, the energy embodied in the manufacture process could be considered in addition to energy expenditure in usage. Embodied energy is one of the reasons recycling is better for the environment as the energy expenditure can be much less than producing a product from raw materials. Energy production from non-renewable resources such as coal, is one of the most significant contributors of greenhouse emissions.



Factoid - The Wonder of Trees

Did you know that trees and plants are an integral part of our water cycle and climatic experiences? They contribute to climatic regulation through a process called 'transpiration'. There are special cells on the back of leaves called 'stomata' that facilitate the release of water, from the active uptake of roots systems, in to the air, thereby affecting humidity and atmospheric water for rainfall. 'Stomata' cells also release oxygen that the plant created from carbon dioxide, using the sun's energy in another important process called 'photosynthesis'. Without the on-going creation of oxygen by trees, other plants and plant like bacteria and algae, human beings wouldn't have

> any air to breathe! Take a deep breath and recall that this basic human need we take for granted is enabled by the plant life on our planet, and we need to care for it and be aware of how we depend on nature, all

the time.

This majestic eucalypt (right) has many ecological functions we depend on that may not be apparent.

Trees and plants also provide vital habitat for rapidly declining native wildlife and are part of complex ecological systems. Without the shelter, protection and food provided by

trees and plants many animals would not survive. The leaves that fall to the ground decompose

(break-down) in to nutrient filled soils. Without plants, thin soil layers can quickly erode away and lose its nutrients. moisture and vitality.

This handful of soil was once mostly leaves on a



Microscopic stomata cells at the underside of a leaf (circular rings with openings that release water and air)



Injured Wildlife Hotline (WIRES) - 1300 094 737

Case Study: Ryde River Walk





The Ryde River Walk is a walkway built along the shores of the Parramatta River. It was developed in the context of State wide efforts to improve public access to, and enhance the recreational enjoyment of, Sydney Harbour and its tributaries. Its objectives included; to provide for a range of recreational users in terms of age, fitness and physical ability; integrating the trail into the landscape and providing public art with a focus on the area's social

history and natural environment. The planning of the walkway including a public consultation process which over 2000 people were invited to attend.

For more information see www.ryde.nsw.gov.au/Council/ Have+Your+Say/Ryde+Riverwalk+Next+Stage or contact customer service on 9952 8222



Ryde River Walk completed section



Newsflash!

– Environmental Awards



A recent announcement has been made that City of Ryde is also a finalist for the Local Government and Shires Association's, 2012, Local Government Excellence in the Environment Award for Local Sustainability.

(Above left to right) Bernie Murphy, Acting CEO of Keep Australia Beautiful; Austin Morris, City of Ryde Service Unit Manager - Infrastructure Integration; Sam Cappelli, City of Ryde Service Unit Manager - Environment, and the Hon. Robyn Parker MP, Minister for Environment and Heritage.



ENGLISH

If you do not understand this document please come to Ryde Civic Centre, 1 Devlin Street, Ryde Monday to Friday 8.30am to 4.30pm or telephone the Telephone and Interpreting Service on 131 450 and ask an interpreter to contact the City of Ryde for you on 9952 8222.

ARABIC

إذا تعذر عليك فهم محتويات هذه الوثيقة، نزجو الحضور إلى مركز بلدية رايد Ryde Civic Centre على العنوان: Devlin Street, Ryde 1 من الاثنين إلى الجمعة بين الساعة 8.30 مساحاً والساعة 4.30 بعد الظهر، أو الاتصال بمكتب خدمات الترجمة على الرقم 131 لكي تطلب من أحد المترجمين الاتصال بمجلس مدينة رايد، على الرقم 2822 995و، نيابةً عنك.

ARMENIAN

Եթէ այս գրութիւնը չէք հասկնար, խնդրեմ եկէք՝ Րայտ Սիվիք Սենթըր, 1 Տելվին փողոց, Րայտ, (Ryde Civic Centre, 1 Devlin Street, Ryde) Երկուշաբթիէն Ուրբաթ Ա.ա. Ժամը 8.30 – Ա.ե. Ժամը 4.30, կամ հեռաձայնեցէք Տեռաձայնի եւ Թարգմանութեան Սպասարկութեան՝ 131 450, եւ խնդրեցէք որ թարգմանիչ մը Րայտ Քաղաքապեղարանին հետ կապ հաստարէ ձեզի համար, հեռաձայնելով՝ 9952 8222 թիւին։

CHINESE

如果您看不懂本文,請在周一至周五上午 8 時 30 分至下午 4 時 30 分前往 Ryde 市政中心詢問 (Ryde Civic Centre, 地址: 1 Devlin Street, Ryde)。你也可以打電話至電話傳譯服務中心,電話號碼是: 131 450。接通後你可以要求一位傳譯員爲你打如下電話和 Ryde市政塵聯繫,電話是: 9952 8222。

FARSI

اگر این مدرک را نمی فهمید لطفاً از 8.30 صبح تا 4.30 بعد از ظهر دوشنبه تا جمعه به مرکز شهرداری راید، Ryde Civic Centre, 1 Devlin Street, Ryde مراجعه کنید یا به سرویس مترجم تلفنی، شماره 131 150 نفن بزنید و از یک مترجم بخواهید که از طرف شما با شهرداری راید، شماره 8922 8922 تافت نند

ITALIA

Se non capite il presente documento, siete pregati di rivolgervi al Ryde Civic Centre al n. 1 di Devlin Street, Ryde, dalle 8.30 alle 16.30, dal lunedi al venerdi; oppure potete chiamare il Telephone Translating and Interpreting Service al 131 450 e chiedere all'interprete di contattare a vostro nome il Municipio di Ryde presso il 9952 8222.

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 부탁하십시오.

P City of Ryde

Lifestyle and opportunity @ your doorstep

City of Ryde Council

Civic Centre, Devlin Street, Ryde NSW 2112 Telephone 9952 8222 Fax 9952 8111 www.ryde.nsw.gov.au



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