Introduction

OUR CITY
The City of Ryde has a rich history with the traditional Aboriginal owners of the land being the Wallumedegal clan of the Dharug people.

Our city is located in Sydney's north-western suburbs, 12 kilometres from the Sydney CBD. Set in scenic surrounds between the Parramatta and Lane Cover River, we are connected to other parts of metropolitan Sydney via major road systems, rail, bus and ferry services.

We encompass a total land area of approximately 40 square kilometres including waterways and parklands. Within this sits Macquarie Park, one of Sydney’s largest business precincts, four town centres and 29 neighbourhood centres, Macquarie University, Ryde and Meadowbank Colleges of TAFE, over 33,000 businesses, five public libraries, 24 primary schools, five high schools and five hospitals.

The City is made up of 16 suburbs with over 40,000 dwellings, of which approximately 48% are of medium or high density. The City also has a diverse, growing population (currently 110,791 people) of which approximately 36% are from non-English speaking backgrounds. The population in the City of Ryde has grown by around 10% over the past 6 years, with the majority of new dwellings being of medium to high density.

City of Ryde Household Statistics as at 30 June 2012:

- **Population (2011/12):** 110,791
- **Projected Population 2021:** 122,353
- **Total Number of Individual Households in LGA:** 41,755
- **% Single Unit Dwellings (SUDs) (2011/12):** 57%
- **% Multi Unit Dwellings (MUDs) (2011/12):** 43%
- **Socio - Economic Index:** 1,050

This Waste Strategy outlines the steps our City is taking to better manage our waste streams, focusing on the key areas of waste avoidance, resource recovery, and Advanced Waste Treatment methods. We will be implementing a Waste Minimisation Plan to reach the City’s desired outcomes as identified in our Community Strategic Plan 2025.

Council will continue to engage, inform and educate the public and industries of the benefits of clever waste management and recycling to meet the City’s current and future needs.
Key Waste Management
CHALLENGES AND OPPORTUNITIES
Meeting the needs of a growing population
Sydney’s population is expected to grow to six million people by 2036, with an average annual increase of 56,650 people. Ryde’s population is forecast to be over 135,000 by 2031. The City’s popularity is likely to bring even stronger growth and demand on existing infrastructure and services.

Our Challenge is to meet the increasing pressure and needs of a growing population and changing demographics, while maintaining the prosperity, uniqueness and liveability of our city. The ability to service the waste needs of this growing community with minimal impact on the environment, within the capabilities of waste collection services, will be a challenge.

Reduce, Reuse, and Renew
Sydney metropolitan and NSW landfill capacities are limited. The NSW State Government has set a target of 70% diversion of municipal waste from landfill by 2020 in its Waste Less, Recycle More Strategy. Council will continue to work with its residents and businesses to deliver environmentally responsible and sustainable waste management solutions.

Our Challenge is to educate and influence the community to take on long term changes to reduce unnecessary waste at its source, and offer opportunities to reuse and renew valuable resources which would otherwise be sent to landfill.

Resource Recovery – Adopting Advanced Waste Technology
In the past decade, new technologies have emerged for better recovery of resources from waste, and for capturing and utilising energy from the residual waste stream. These methods are generally termed “Advanced Waste Treatment” (AWT) and encompass different approaches ranging from sorting systems through to high-tech power generation. AWTs will be a key feature in managing our waste streams to provide environmentally responsible and sustainable waste management solutions into the future.

Our Challenge is to identify and adopt the most suitable technology to recover resources from our ‘left-over’ (residual) waste.

Adapting to climate change
There are many natural and human challenges that confront our city and region including the potential impact of changes to our climate. Carbon emissions generated at existing waste landfill sites have also added to this problem.

Our Challenge is to address the impact that waste has on Climate Change by adopting low emission waste management solutions where feasible.
Core Waste Services

- Metals
- General waste
- Bundled and tied greenwaste
MUNICIPAL WASTE

Under the Local Government Act 1993, Council is responsible for providing efficient waste management services to all residents which include:

- Collecting, sorting, processing and disposing of putrescible waste, recyclable material and garden vegetation (green waste)
- Provision of a community waste education program
- Control and management of litter and illegal dumping
- Diverting problem wastes from landfill.

Domestic Waste Management

The City of Ryde provides a comprehensive range of services to residents to encourage good waste management practices and waste avoidance. These include:

- Comprehensive domestic waste and recycling collection service
- At-call Electronic Waste Collection
- Booked Chipping & Mulching Service at the kerbside
- Second-hand Saturday promotions
- Problem waste recycling – batteries, globes, mobile phones & printer cartridges
- Clothing Bins
- Public place and parks recycling
- Free Medical waste collection – sharps and dialysis tubing
- Annual household chemical collection
- Worm farm & composting demonstrations
- Comprehensive community education programs

The standard domestic waste collection bin regime as at February 2014 was as follows:

<table>
<thead>
<tr>
<th>Dwelling</th>
<th>Residual Waste</th>
<th>Recycling</th>
<th>Garden vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single / Multiple House</td>
<td>140L Weekly</td>
<td>240L Fortnightly</td>
<td>240L Fortnightly</td>
</tr>
<tr>
<td>Multiple Unit</td>
<td>240L Weekly Share 1 between 2 units</td>
<td>240L Fortnightly Share 1 between 2 units</td>
<td>-</td>
</tr>
<tr>
<td>Multiple Unit</td>
<td>660L 3 times per week Share between 16 units</td>
<td>1100L Weekly Cardboard</td>
<td>-</td>
</tr>
<tr>
<td>Multiple Unit</td>
<td>1100L 3 times per week Share between 27 units</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Successful Diversion of Waste from Landfill

With the introduction of a fortnightly garden vegetation (green waste) collection in 2006 and ongoing education campaigns, diversion from landfill was increased to 48%. This was an increase of around 25% from 2004. However, the city’s municipal waste diversion rate appears to have plateaued at around 47-48% since 2009, which is significantly short of the 2014 target of 66%. Advanced Waste Treatment (AWT) technologies have the potential to bridge this gap, but there is currently limited AWT processing capacity within the Sydney metropolitan area.

Council will continue to work with other Councils in joint regional initiatives to achieve and meet State Government landfill diversion targets, as well as to decrease our City’s environmental footprint.
Comprehensive Education Program

Council provides an active waste education program that promotes recycling, resource recovery, waste minimisation, composting and worm-farming, as well as demonstrations and waste tours for the community. The Annual Waste Collection Calendar, which is distributed to all households, identifies the waste, recycling and garden vegetation (green waste) days and household clean-up collection dates. Additional information is also provided for events & workshops and our comprehensive waste services. Information on our programs is available on Council’s website.

Waste & Resource Recovery Tonnage data

The City of Ryde’s residents produced almost 47,000 tonnes of waste and recycling in 2012-2013. Society is discarding more material than ever before partly due to increased consumption as the economy grows and the rapid turnover and disposal of products.

The chart below shows the dissection of the total wastes collected in 2012-13 and percentages per category.

Total Domestic Waste:

<table>
<thead>
<tr>
<th>Total Recyclables</th>
<th>Total Waste to Landfill</th>
<th>TOTAL Domestic Waste Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Kerbside, Clean Up, Drop off, AWT Recyclables Tonnes</td>
<td>Domestic Kerbside, Clean Up, Drop off Tonnes</td>
<td>Tonnes</td>
</tr>
<tr>
<td>20,940</td>
<td>21,475</td>
<td>42,415.05</td>
</tr>
</tbody>
</table>

(Figures as at 30 June 2012)
Household Clean-up Service
As at February 2014, Council provided five scheduled clean-ups for household waste items. A marked increase in presentation rates for clean-ups was observed between 2009 and 2011, potentially corresponding with a marked rise in minimum waste transfer station tipping charges to residents.

<table>
<thead>
<tr>
<th>Clean Up Electronics (e-waste)</th>
<th>Clean up Garden vegetation</th>
<th>Clean Up Metals</th>
<th>Clean Up Others</th>
<th>Clean Up Bulky Goods</th>
<th>Clean up other Recyclables</th>
<th>Total Domestic Clean Up Recyclables + Vegetation + Metals + Other</th>
<th>Total Domestic Clean Up Waste to Landfill</th>
<th>Total Domestic Clean Up Waste Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>Tonnes</td>
</tr>
<tr>
<td>19</td>
<td>621</td>
<td>404</td>
<td>0</td>
<td>4261</td>
<td>132</td>
<td>1750</td>
<td>3687</td>
<td>5437</td>
</tr>
</tbody>
</table>

(Figures as at 30 June 2012)

Council will be reviewing its scheduled clean-up service, including analysis of scheduled and “at call” collection options, with the view to move to an “at call” service. This option maybe a more efficient use of resources and should aid in the reduction of costs as well as enable better management of illegal dumping.

COMMERCIAL WASTE MANAGEMENT

Council provides a comprehensive commercial waste management service, offering varying sizes and frequencies of waste and recycling collections.

The City encourages better commercial waste management by:
- Offering a range of flexible collection services
- Continuing education programs and targeted campaigns for small and medium businesses
- Fostering closer relationships with businesses through involvement in local community groups and chamber of commerce
- Local planning controls to ensure appropriate recycling infrastructure and bin storage

CONSTRUCTION AND DEMOLITION WASTE

The EPA set a 2014 landfill diversion target for commercial and industrial waste of 76%. Council has actively pursued this target with regard to its construction and demolition (C&D) waste generated from Council’s construction works. Tracking of recycling rates for 2013-14 for waste concrete, asphalt and soil indicated that these waste products were recycled on or off-site at a rate exceeding 80%.

There is scope for further improvements in diversion of C&D waste and Council’s efforts will be centred around:
1. Improving soil management, from the point of generation to the point of disposal
2. Increasing re-use of soils generated from Council’s construction works
3. Increasing recovery or source separation of other recyclables such as timber and plastic.
Engaging OUR COMMUNITY
In 2012, Council conducted a Waste and Recycling Survey of its residents to obtain feedback on our waste services. Participants were also encouraged to provide ideas on service enhancements and ways to improve recycling.

The survey was completed by over 4,000 participants (representing approximately 10% of our households) and the results demonstrated that over 80% of respondents were satisfied with their current waste service. The survey also identified a number of ways to improve waste management in our city including:

- Reducing waste on a household level, encouraging composting and worm farming to reduce food waste in the domestic waste stream
- Increasing recycling and garden vegetation (green waste) collection
- Better managing waste from household clean-ups across the City
- Improving access to problem waste recycling, including light globes and batteries
- Expanding multilingual education campaigns to reach our diverse population
- Ongoing planning for a sustainable future

This feedback aids in the development of a tailored Waste Strategy to meet the community's needs and aspirations.
Our Waste Management

OBJECTIVES AND STRATEGIES
Vision for Waste Management at the City of Ryde

Council will provide a waste management program that contributes to improving the environment and well-being of our community, which is focused on waste avoidance, resource recovery and landfill minimisation.

Our Objectives, Actions and Performance Measures

To meet essential waste management requirements for our growing City, as well as the long term goals of the NSW Waste Avoidance & Resource Recovery (WARR) Strategy, Council will focus on the following objectives:
1. Meeting Community Needs
2. Reducing Waste Generation
3. Increasing Recycling
4. Exploring Advanced Waste Treatment Options
5. Better Managing Problem Waste
6. Creating a Cleaner City by Reducing Litter and Illegal Dumping
7. Integrating Waste Management Solutions into Future Developments

1. Meeting Community Needs

OBJECTIVE
Provide a comprehensive waste management service which meets the needs of the residents.

STRATEGY
A 2013 Waste & Recycling survey completed by nearly 10% of rateable properties demonstrated that, while over 80% of respondents were satisfied with their waste service, key suggestions for improvement included:

• Expanded multilingual education campaigns on recycling and waste processing
• Revised management of household clean-ups
• Incentives to reduce waste – options for smaller bins at lower rates
• Revised frequency of recycling and garden vegetation (green waste) collection
• Access to problem waste recycling such as light-globes and batteries

Actions:

• Broader waste education programs
• Review the household clean-up service offered
• Review bin size options and collection frequencies
• Promotion of Council’s available waste services through various media channels

TARGETS & PERFORMANCE MEASURES

• Annual report on community engagement conducted by the waste team
• Biennial Surveys conducted to ensure needs of community are met
• Reduced tonnages of municipal solid waste per capita across the city
• Meet the NSW Government municipal waste diversion target.
2. Reducing Waste Generation

OBJECTIVE
Promote the efficient use of materials across the community and discourage generation of unnecessary waste.

STRATEGY
The Waste Levy was introduced by the State Government to provide an economic incentive to reduce waste going to landfill.

Council will continue its active role in educating the community in ways to reduce household waste generation. Council will also continue its contribution to focus groups and industry dialogue in this regard.

Actions:
- Education program designed to encourage long term behavioural changes such as food waste avoidance and promotion of local produce markets
- Promotion of “package-free” options and increase awareness of benefits of the “No Plastic Bags” campaign
- Conduct free waste audits for businesses to help reduce wastage and recognise achievements through an accreditation program
- Provide onsite resource recovery - chipping & mulching of garden waste for reuse
- Provision of incentives for small waste generators

TARGETS & PERFORMANCE MEASURES
Annual monitoring and reporting on residual waste tonnage trends

3. Increasing Recycling

OBJECTIVE
Improve community awareness of best practices for recycling through targeted communication and education programs.

STRATEGY
Audits carried out on the Municipal Solid Waste (MSW) stream have indicated that 23% of the red bin contents could have been recycled, and that a further 40% was food and organic materials.

Recycling rates may be improved through targeted education programs tailored around behaviour change, access to increased services and focus on resource recovery.

Product stewardship and Extended Producer Responsibility are important factors in improving long term product and packaging design to enable better resource recovery.

Actions:
- Increased access to recycling & resource recovery services
- Consider expansion of available drop off recycling points to increase in availability for residents to recycle batteries, light globes, cartridges etc
- Expand community education programs & materials
- Review existing bin size and collection frequency to encourage recycling
- Improve multi-unit dwelling participation through improved bin bay design, signage, and revised collection systems
- Ongoing assessment of disposal options including Advanced Waste Treatment methods that maximise recovery rates
- Encourage reuse of wanted goods through local garage sales
- Recycling of old clothing through clothing bins & SWAP parties
- Council will support and advocate any State and National programs that assist in minimising packaging and reducing manufacturers waste

TARGETS & PERFORMANCE MEASURES
- Annual report on calculated recovery of recyclables and garden vegetation (green waste)
4. Exploring Advanced Waste Treatment Options

OBJECTIVE
Advanced methods of waste processing put in place to divert materials from entering landfill, through materials and energy recovery.

STRATEGY
There is a diminishing supply of approved landfill capacity accessible in the Sydney metropolitan area. Alternative technology options need to be investigated and encouraged to enable Councils to meet the landfill diversion targets set by the EPA. In March 2013 the EPA released the NSW Energy from Waste Draft Policy Statement, which may open up new means of diversion from landfill.

Actions:
• Work with the NSROC Group of Councils to establish joint regional waste disposal management initiatives
• Monitor industry developments with regard to AWT processing / disposal options
• Target & Performance Measures
• Annual report on AWT options and contemporary industry AWT processing capacity for Sydney wastes

5. Better Managing Problem Waste

OBJECTIVE
Reduce the environmental impact of harmful household wastes such as paint, gas bottles, motor oils, batteries, smoke detectors, fluorescent lamps and globes and other toxic and hazardous materials through source separation.

STRATEGY
Over the past 10 years, the EPA has funded household chemical collection events to discourage residents from disposing of toxic waste in landfill. Council will continue to explore options to increase the availability of drop-off facilities and mobile collection facilities for the disposal of harmful materials.

Actions:
• Educate the community on problem waste and its effects on the environment
• Promote and enhance existing services provided by Council, including the e-waste collection and drop-off options to prevent harmful materials entering landfill
• Investigate options to expand problem waste management methods and mobile recycling options
• Investigate options for disposal of asbestos for households to compliment the EPA Initiative.

TARGETS & PERFORMANCE MEASURES
• Annual report on e-waste and problem waste quantities collected and disposal options available to the community - Statistics
6. Creating a Cleaner City by Reducing Litter and Illegal Dumping

OBJECTIVES
Creating “the place to be for lifestyle and opportunity” through a change in attitudes and behaviour towards littering and illegal dumping through targeted education programs and enforcement.

STRATEGY FOR REDUCING LITTER
Litter is a prime concern of the community as it pollutes the City’s streets, parks, waterways, and the local environment. Targeted education campaigns, as well as adequate litter bins, appropriate signage, and enforcement can be utilised to reduce the incidence of littering.

Actions:
- Engage the community to help identify and combat littering “hot spots”
- Targeted education campaigns and community recognition awards

STRATEGY FOR ILLEGAL DUMPING
The reasons for illegal dumping are wide ranging. They include lack of awareness about the City’s waste services, how to avoid waste, or insufficient options to reuse items. Most illegal dumping is generated from households, although some businesses also dump illegally.

The City aims to encourage and enable reuse of bulky items before disposal to extend their useful life. Council will also review its household clean-up strategy to reduce illegal dumping occurrences and the volume of waste going to landfill.

Actions:
- Provide education programs on the City’s waste services and the impact of illegal dumping on the local environment
- Encourage reuse or correct disposal of unwanted goods
- Review household clean-up collection options
- Consider supplementary ‘hotspot’ clean-ups
- Work with Body Corporates and Strata Managers to implement strategies to reduce illegal dumping outside multi-unit dwellings
- Beautification of public places and improved surveillance of illegal dumping hotspots
- Working with NSROC to explore a RID Squad to assist in monitoring and regulating illegal dumping

TARGET & PERFORMANCE MEASURES
- Statistics on number of illegal dumping incidents by location

7. Integrating Waste Management Solutions into Future Developments

OBJECTIVE
Anticipate and plan for future waste service needs in new high density multi-unit dwellings to streamline waste and recyclables collection and meet the needs of the community.

STRATEGY
The City of Ryde is a fast growing area with a high percentage of multi-unit and mixed business developments. These developments pose significant challenges from a waste servicing and bin storage perspective. Areas for consideration include site restrictions, parked cars, access, and allocation of adequate bin storage areas.

Actions:
- Develop standard guidelines and performance requirements for provision of waste services in multi-unit dwellings
- Update the Waste Minimisation DCP
- Introduce enhanced onsite storage and recycling collections – E-waste, clothing bins, bulk cardboard to multi-unit dwellings

TARGET & PERFORMANCE MEASURES
- Number of Development applications which meet waste service collection standards
NEXT STEPS

Complete the development of a waste management system that aligns with our CSP2025.

Pursue joint regional waste disposal initiatives, with a view to promoting AWT technologies.

Ensure new collections and disposal contracts are consistent with Council’s Waste Strategy document.

Review Waste Minimisation section of DCP to meet ongoing development trends within the City.
<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
<th>Action</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Waste Collection and Disposal Tenders</td>
<td>Develop Tender documentation for waste, recycling, garden vegetation (green waste) and clean-up collection contract and award a new contract. Work with NSROC to develop a Regional Waste Disposal and Processing Tender for domestic and commercial waste, clean-up, street sweeping and illegal dumping and award contract.</td>
<td>November 2014, January 2015</td>
</tr>
<tr>
<td>High</td>
<td>Multi-Unit Dwellings - Education</td>
<td>Continue to improve programs to deliver better understanding of recycling systems and waste diversion to residents of MUD’s through Strata Managers and Real Estate agents. (Funding approved by EPA).</td>
<td>Ongoing</td>
</tr>
<tr>
<td>High</td>
<td>DA Planning</td>
<td>Review existing Waste Minimisation DCP and develop standard guidelines to ensure new high rise developments meet Waste Collection constraints and public domain amenity.</td>
<td>April 2015</td>
</tr>
<tr>
<td>High</td>
<td>Reduce waste generation</td>
<td>Introduce an 80L waste bin at a reduced cost to encourage waste diversion. Continue to promote and deliver food waste avoidance programs and messages to encourage behavioural change. Provide regular composting and worm farm demonstrations with residents and school groups to encourage waste avoidance. Increase awareness of problems relating to packaging and plastic bags.</td>
<td>May 2015, Ongoing (ongoing)</td>
</tr>
<tr>
<td>High</td>
<td>Household Clean-up Collection</td>
<td>Review the current scheduled household clean-up service offered against an ‘At Call’ service</td>
<td>November 2014</td>
</tr>
<tr>
<td>High</td>
<td>Educational Promotion</td>
<td>Promote Waste Avoidance &amp; Resource Recovery through local community activities, school programs and through media releases in the local newspaper.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>High</td>
<td>Provide &amp; deliver Waste Collection Calendars</td>
<td>Design and deliver residential waste collection calendars to all residents in the Ryde LGA. Calendars will provide garbage, recycling, garden vegetation (green waste) days and household clean-up dates if required. It will also deliver educational information on best practice waste management procedures and identify any community workshops.</td>
<td>Yearly</td>
</tr>
<tr>
<td>High</td>
<td>Website</td>
<td>Continue to provide website updates to City of Ryde residents on upcoming programs, educational materials and links to suitable sites for further information.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Level</td>
<td>Category</td>
<td>Description</td>
<td>Timeline</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>High</td>
<td>Community &amp; Schools Education</td>
<td>Deliver expanded and enhanced waste communication and education programs designed to encourage long term behavioural changes. Provide workshops and waste reduction education programs to community groups and schools eg. Ryde Environmental Education Network (REEN).</td>
<td>Ongoing</td>
</tr>
<tr>
<td>High</td>
<td>Resource Recovery</td>
<td>Continue to encourage participation in programs to promote resource recovery on site eg Chipping and Mulching, reuse of unwanted goods through garage sales, recycling old clothes through clothing bins.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>High</td>
<td>Manage Problem Waste</td>
<td>Promote existing services provided by Council including Medical waste disposal, E-waste collection and drop off options and supply of plastic sharps containers for free from Customer Service. Promote and support household chemical collections provided by EPA. Investigate options to expand problem waste management methods for mattresses and household chemicals and increase drop off points to recycle mobile phones, batteries, globes and cartridges.</td>
<td>Ongoing  Yearly December 2015</td>
</tr>
<tr>
<td>High</td>
<td>Create a Cleaner city by reducing litter and Illegal Dumping</td>
<td>Identify illegal dumping hot spots and introduce beautification programs and surveillance systems. Engage with Strata Managers to implement strategies to reduce illegal dumping outside units ie provide monthly booked clean-up collections. Ensure adequate litter bins, signage and enforcement is in place to reduce litter.</td>
<td>June 2015 May 2015 Ongoing</td>
</tr>
<tr>
<td>High</td>
<td>Commercial/Business Waste</td>
<td>Promote and deliver a comprehensive waste and recycling collection service to businesses within Ryde. Work with businesses to increase recycling through providing waste audits and education programs. Trial a separate food waste collection and processing service for existing customers.</td>
<td>Ongoing  June 2015 June 2015</td>
</tr>
<tr>
<td>Medium</td>
<td>Public Event Recycling &amp; Waste Services</td>
<td>Provide comprehensive waste and recycling management services to public events including Granny Smith, Australia Day, Carols by Candlelight, Cinemas in the Park.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Medium</td>
<td>Industry Networking</td>
<td>Share information and knowledge with industry and Council staff by attending waste meetings, conferences and workshops.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Medium</td>
<td>Container Deposit Legislation</td>
<td>Investigate the impact of CDL on our recycling services and how it will be managed to assist in litter reduction.</td>
<td>June 2015</td>
</tr>
</tbody>
</table>