



Wagga Wagga City Council

2007/2008

State of the Environment Report

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Introduction

The State of the Environment Report prepared by the Wagga Wagga City Council comprises one chapter of Council's Annual Report submitted each financial year to the Department of Local Government. As allowed for by legislation, the State of the Environment Report for 2007/2008 is in a supplementary format because it is not reporting for a financial year ending after Local Government elections.

The State of the Environment Report details the performance of a wide range of key environmental indicators over the past financial year and makes comparisons with previous years. The trends indicate progress being made by the community towards solving issues.

The report is framed around the major resources of Land, Water, Biodiversity, Waste, Heritage, Climate, Air and Energy and covers the reporting period from 1st July 2007 to 30th June 2008.

Council's responsibility is far wider than just managing for the city's present needs for day-to-day living. It extends into the planning and management of the areas natural resources in order to meet the community's future needs

and expectations. It is not a simple task to manage a resource between disparate demands so that equity can be achieved in both the present and the future. Land has always been a classic example of the complex multiple use management problem. Now with the increasing demands of human population growth the management of water, air, and biological resources has become more complex due to the greater, more diverse demands placed on these resources.

Council has maintained a strong commitment to sustainable development, and the development of Wagga Wagga as a "Global Water Smart City" is a key strategy for achieving an integrated approach to water resource management.

In March 2008, the mayor signed the "NSW Mayors' Agreement on Climate Change". This Agreement commits Council to reducing greenhouse gas emissions by 20% by the year 2020, based on 2005 emissions levels.

Information shown in the State of the Environment Report shows how well Council is progressing towards implementing its policies, management plans, and the principles of Ecologically Sustainable Development.



Legislative Requirements



enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

Community Environmental Consultation

Throughout the year Council staff regularly consulted with State Government Departments and community groups on a range of local environmental planning issues and projects. This included: Department of Water and Energy, Department of Primary Industries, NSW Maritime, and the Department of Environment and Climate Change. Local environmental groups included: Wagga Wagga Urban Landcare and the River Precinct Committee.

In addition to direct consultation there were other avenues through which Council staff consulted with the public including:

- Public exhibition of the Spatial Plan;
- Public exhibitions of proposed land developments;
- Written notification to adjacent landowners of development projects; and
- Employment of a Natural Resources Management Officer to liaise with community groups and schools on environmental issues.

Council's Commitment to Ecologically Sustainable Development

The implementation of the principles of Ecological Sustainable Development requires the integration of the natural resources with the physical and social requirements of the human population.

The key environmental goals for the community of the Wagga Wagga Local Government Area are outlined in section 3 of the Community Strategic Plan "Our City... Our Tomorrow 2008-2018". These goals and the strategies related to their achievement are:

An integrated approach to water resource management

- Facilitate research and planning including Global Water Smart City to ensure water conservation, reuse and efficiency.

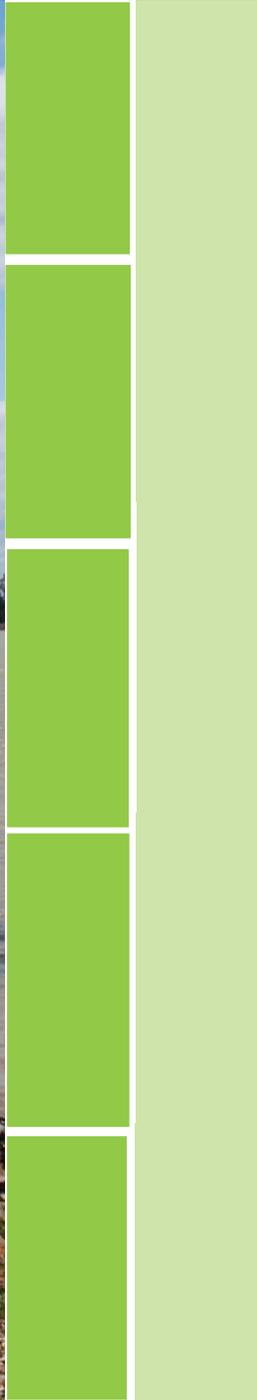
- Develop and promote partnerships with key stakeholders.

A sustainable built and natural environment

- Maintain a contemporary Local Environment Plan and vision for the Wagga Wagga Local Government Area.
- Promote the principles of ecological sustainable development.
- Promote stewardship and best practice land use policies to protect the environment and enhance the economy.
- Encourage development that protects biodiversity and natural ecological processes.
- Sustainable management of natural resources.
- Manage waterways and land use to minimise detrimental environmental impact.
- Protect, enhance and rehabilitate native vegetation and ecosystems to enhance biodiversity.
- Support and promote the improvement of ambient air quality.
- Encourage the community to participate in programs to enhance the environment.

Promote environmental sustainability

- Minimise the ecological footprint of, and reduce resource consumption within the Wagga Wagga Local Government Area through greater energy efficiency and renewable energy technologies.
- Minimise waste to landfill through reduce, reuse and recycle strategy.
- Reduce greenhouse gas emissions across the local government area.
- Facilitate community education for the achievement of a sustainable environment.



Land



Land

Population

The estimated resident population in the Wagga Wagga LGA at 30th June 2008 was 60,857 which is an increase of about 850 people from last year (Bureau of Statistics). This increase represents a growth rate of approximately 1.4% per annum.

Housing Development

The table below indicates the number of development applications and construction certificates issued in Wagga Wagga. The figures indicate that Wagga Wagga had a slight decline in housing growth during the past year.

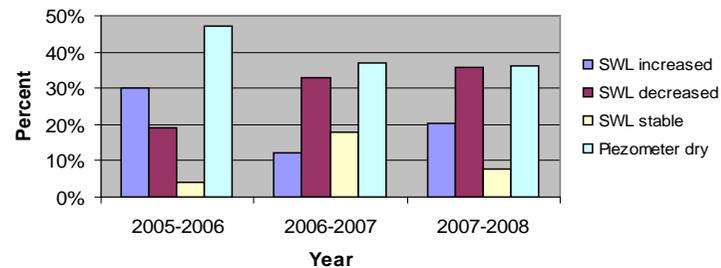
Indicators	02/03	03/04	04/05	05/06	06/07	07/08
No. of approved Development Applications	1,220	1,486	1,316	1,138	1,204	908
No. of Construction Certificates issued	748	1,302	1,131	949	1,001	773

Source: Wagga Wagga City Council town planning records. Amended development applications and refused development applications are excluded.

Salinity

Salinity in the Wagga Wagga urban area is a major issue as rising water tables bring salts closer to the soil surface. There are now 183 piezometers installed throughout the urban area that Council uses to monitor ground water levels. The following chart shows some of the changes in ground water levels.

Changes in Standing Water Level (all piezometers)



Source: Urban Salinity Status Report

The main differences over the past twelve months are that a small percentage of piezometers have showed an increase or a decrease in standing water levels.



Contaminated Land

Under the Contaminated Land Management Act 1997, the Department of Environment and Climate Change (DECC) regulates sites that are determined by them as posing a “significant risk of harm”. These are listed on a Public Register, indicating what notices exist for each property. Three sites in the Wagga Wagga LGA are on this register:

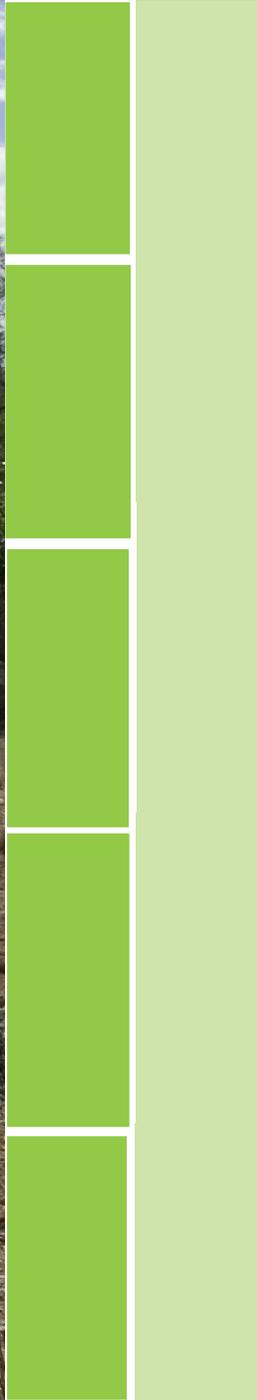
- Mobil Service Station, Tarcutta-Notice for Declaration of Remediation
- Former Gasworks, Tarcutta St, Wagga Wagga-Notice for Declaration of Remediation; and
- Former Gasworks, Chaston St, Wagga Wagga-Notice for Maintaining a Remediated Site.

Council undertakes monitoring to assess contamination levels at the following sites:

- Former Tarcutta Street Gasworks
in 2007/2008 this was declared a Remediation Site by the DECC/EPA Contaminated Sites Branch. Council has engaged a consultant to investigate the extent of contamination on the site by drilling test wells and conducting groundwater monitoring until October 2008.
- Former Wiradjuri Landfill
Council has undertaken investigations for the site over the past year, including installation of eight additional gas monitoring wells and a quarterly monitoring program of surface, subsurface and gas accumulation monitoring.
- Former Narrung Street Liquid Waste Disposal Facility
Council have undertaken ongoing monitoring of the sites groundwater over the past year, and this will continue over the next twelve months. Three additional groundwater monitoring wells were also installed during 2007-2008.

- Former Chaston Street Gasworks
The Voluntary Remediation Agreement entered into with the DECC/EPA has been satisfactorily carried out, and it has been determined that the contamination at the site no longer presents a significant risk of harm. A Notice for Maintaining a Remediated Site has been issued to the new occupiers of site.





Climate, Air and Energy



Climate, Air and Energy

Climate

The following table provides a comparison of rainfall and temperature statistics recorded at Wagga Wagga in recent years. It illustrates that compared to the Annual Mean (70 year average) temperatures are increasing, and rainfall is decreasing.

Year	Rainfall (mm)	Temperature (minimum)	Temperature (maximum)
2005	513.0	9.1	23.2
2006	267.2	8.4	24.4
2007	466.4	10.1	23.9
Annual Mean	559.9	8.4	22.3

Source: Bureau of Meteorology, Melbourne.

Air Quality

Council in partnership with the Department of Environmental and Climate Change (DECC) maintains the Ambient Air Quality Station in Murray Street. Over the previous three years the number of days when particle matter in the air exceeded the National Environment Protection Measure of 50ug/m³ is illustrated in the following table.

Year of Measurement	No. Days exceeded
2005-2006	11 days
2006-2007	57 days
2007-2008	20 days

During 2007/2008, this standard was exceeded during October 2007 and January, February, March and April 2008. The higher rainfall this year and in 2005/2006 (compared to last year) seems to be directly related to the lower number of exceedances.

Woodsmoke Reduction Program

Council staff continued to monitor chimneys during the winter months, and distribute educational materials.

Only three complaints concerning excess wood smoke from domestic chimneys were received by Council staff during the past twelve months. This is a big decline from 23 complaints in the previous year.

Environmental Complaints

Complaints during 2007-2008 were:

Type of Complaint	2007-2008	2006-2007
Air Pollution	25	14
Noise Pollution	409	287

The noise pollution consisted of predominantly barking dog complaints.

Only two Clean-Up Notices were issued for pollution incidents this year, and only three notices last year.

Energy and Fuel Consumption by Council

Council's Energy Savings Action Plan was completed during 2007/2008 and implementation of the recommendations will shortly commence.

Total energy use and carbon dioxide (CO₂) produced in 2007/2008 is shown in the table below compared with 2005/2006.

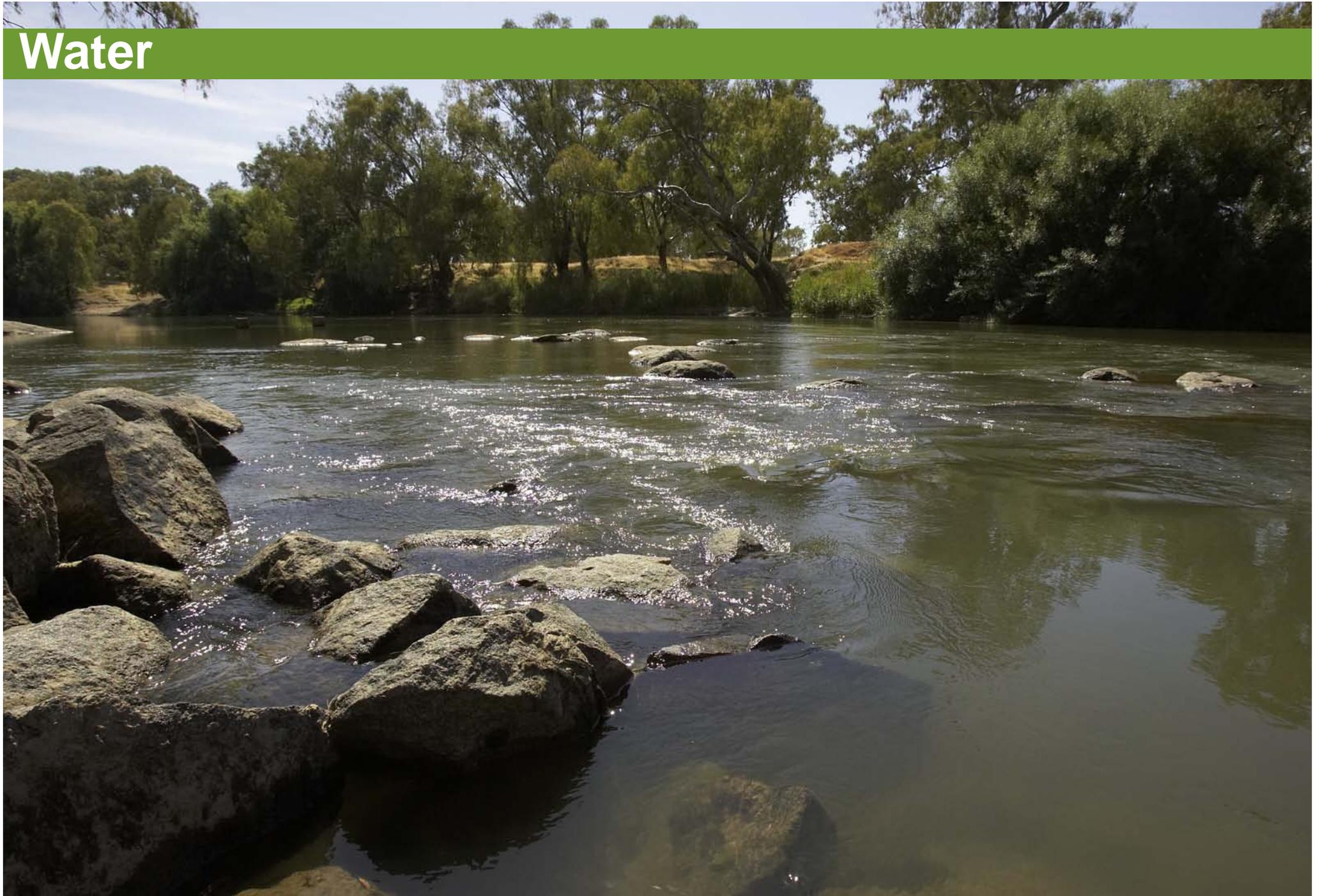
Year	Electricity kWh	Electricity CO ₂ tonnes	Gas GJ	Gas CO ₂ tonnes
2005-2006	12,394,839	11,760	14,749	1,026
2007-2008	10,575,107	11,338	13,948	955

Note: Council's total electricity and gas expenditure during 2007/2008 does not include the cost of running the Narrung Street, Koorngal and Bomen sewerage treatment works which are now managed by an external company.

Year	Diesel Litres	Diesel CO ₂ tonnes	Petrol Litres	Petrol CO ₂ tonnes
2006-2007	656,226	1,903	198,946	497
2007-2008	536,367	1,555	181,232	453

Compared with last year, the diesel consumption was down by 18% and the unleaded petrol down by 9%.

Water



Water

The Local Government Area, which is 4,886 square kilometres in size, contains the following water bodies:

- Murrumbidgee River
- Lake Albert
- Wollundry and Flowerdale Lagoons and
- Many streams, creeks and wetlands

These water bodies commonly suffer from such problems as water shortages, damaging floods, bank erosion, salinity, litter and pollution, cold water releases that upset breeding cycles, algae, and invasions by carp and weeds.

Council liaises with Riverina Water County Council and the Murrumbidgee Catchment Management Authority to enhance, protect and preserve these different water bodies, and conducts an independent monitoring program.

Water Quality Monitoring

Council staff routinely monitor water quality at the following sites:

- Murrumbidgee River-general water quality parameters upstream and downstream of Wagga Wagga;
- Wollundry Lagoon-general water quality parameters at four locations, and blue green algae at two locations;
- Flowerdale Lagoon-general water quality parameters at two locations;
- Lake Albert-general water quality parameters at two locations, blue green algae and faecal coliforms at two locations as well;

When quality levels fall below acceptable standards Lake Albert is closed for swimming and other recreational activities. During 2008, the Lake was closed from mid January to mid February, and then from mid March to the end of June due to contamination by blue/green algae and faecal coliforms.

Water Pollution Complaints

Council conducts site checks for erosion and sedimentation control at building sites, and provides educational materials. In 2007/2008 Council staff received four complaints regarding water pollution; however no Penalty Infringement Notices were issued. This follows the good record for the previous year when no Penalty Infringement Notices were issued.

Urban Stormwater Management

Council's street sweeping program aims to ensure the urban area is kept neat and tidy, while most importantly preventing soil, organic matter and litter accumulating in gutters and then entering the stormwater system.

Council's maintenance program of gross pollutant traps (GPTs) continued throughout 2007/2008 with all GPTs cleaned on a regular basis (and after significant rainfall events) in order to prevent pollutants entering environmental waterways.

Council is also embarking upon an investigation program of its existing stormwater/drainage network in order to develop a remediation program for its stormwater/drainage assets.



Biodiversity



Biodiversity

Threatened Species

There are a significant number of threatened species, populations and ecological communities which are highly likely to occur in the Wagga Wagga Local Government Area. These are listed in the table below.

Type	Number
Invertebrates	1
Amphibians (Frogs)	3
Reptiles	2
Mammals	9
Birds	26
Fish	3
Plants	5
Ecological Communities	5

Source: Department of Environment and Climate Change, database records.



Squirrel Glider



Honeyeater

During 2007/2008, there were new detection records for 11 threatened species, three of which were recorded in the Local Government Area for the first time. The detection records of threatened species in the LGA for 2007/2008, are listed in the table below.

Species	No. of detection records
Sloane's Froglet	2
Striped Legless Lizard	1
Speckled Warbler	3
Black-chinned Honeyeater	3
Hooded Robin	3
Diamond Firetail	3
Brown Treecreeper	362
Spotted-tailed Quoll	3
Koala	10
Squirrel Glider	49
Inland Forest Bat	1
Total	440

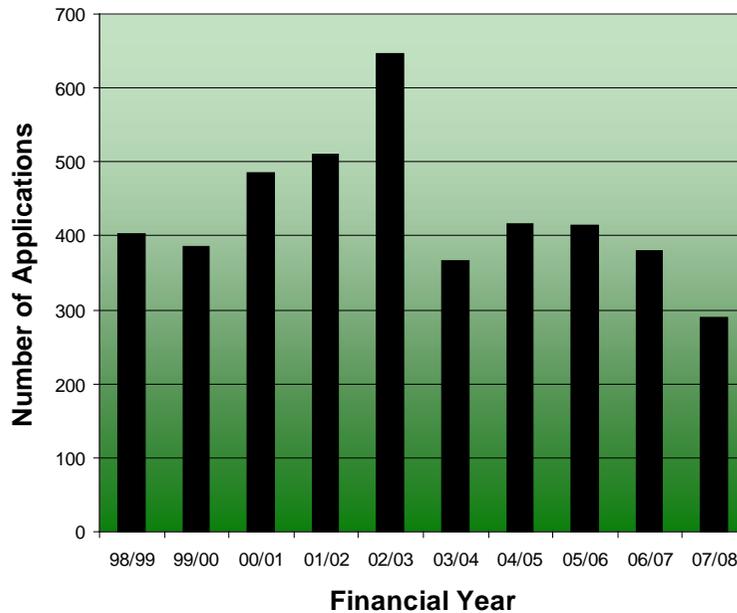
Source: Department of Environment and Climate Change, database records. Note: The records between years are subject to differences in the number and types of surveys being conducted within the area.

Native Vegetation

During 2007/2008, 88 Incentive Property Vegetation Plans were approved in the Wagga Wagga LGA by the Murrumbidgee Catchment Management Authority. Incentive Property Vegetation Plans are approved to landowners to conserve native vegetation through revegetation works or conserving remnant native vegetation and are administered by the Murrumbidgee Catchment Management Authority.

Tree Management Policy

The chart below illustrates the number of applications made and assessed under Council's Tree Management Policy. The amount of requests for tree removal has been slowly declining over the past few years.



Source: WWCC Tree Management Policy registration database.

Council received a total of 289 applications to lop or remove trees that required inspections under the Tree Preservation Order. There were 246 approvals, 11 applications required additional information, and six applications were refused.

Noxious Weed Program

Wagga Wagga City Council employs two full time Weed Inspectors, as private property inspections are an essential part of Council's operations. Property inspections allow landholders to be kept up to date on noxious weed identification, potential weed problems, control techniques and ensure a catchment wide approach to controlling weeds.

There has been a reduction in the quantity of weeds over the past 12 months due to below average rainfall and Council's operations have continued to achieve some significant results in controlling noxious weeds both on private and public land using the following methods:

- An education/extension program with a focus on the potential spread of existing weeds and introduction of new incursions through fodder and stock transportation;
- An electronic mapping program; and
- Establishment of biological control agents for weeds including Paterson's Curse, Horehound, Scotch Thistle, Dock, Blackberry and St John's Wort.





Waste

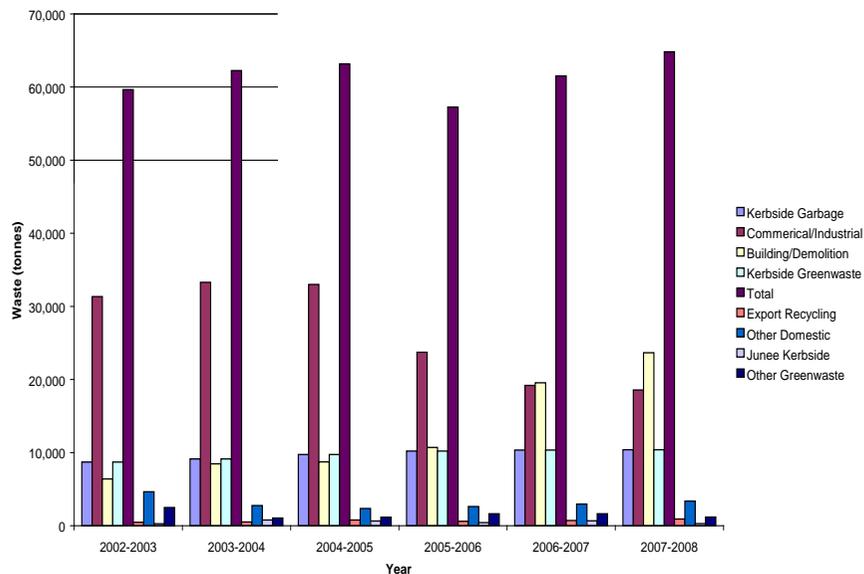


Waste

Solid Waste Management

Wagga Wagga City Council operates a number of small rural landfills as well as the Gregadoo Waste Management Centre, which is one of the largest landfill facilities in regional NSW.

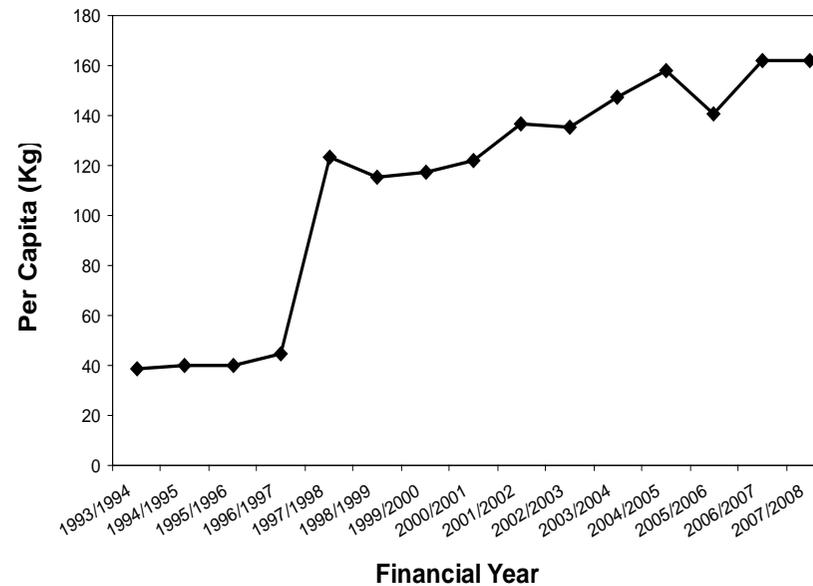
The table below illustrates the amount of solid waste taken to the Gregadoo Waste Management Centre. During the past year there has been a slight increase in total the amount of total waste, largely due to an increase in Building/Demolition category waste.



Source: Wagga Wagga City Council, weighbridge data.
Note: Quantities of kerbside recyclables and waste at rural landfills are not represented in this data.

The following chart indicates the per capita amount of materials delivered to Kurrajong Recyclers from kerbside collection or exported from Gregadoo Waste Management Centre.

The per capita quantity of materials being recycled remained consistent during the past year.



Source: Wagga Wagga City Council (data supplied by Kurrajong Recyclers)
Note: These figures include a small amount of recycled materials from towns outside the Wagga Wagga LGA.

Landfill Gas

During 2007/2008 the methane (CH₄) destroyed at the Gregadoo Waste Management Centre was equivalent to 6,910 Tonnes of CO₂. This would be equivalent to removing 1,818 cars from the road for one year. Since it was commissioned in October 2002 the facility has destroyed methane to an equivalent of 49,695 tonnes of CO₂.

Waste Water Treatment

Wagga Wagga City Council has three main sewage treatment works - Narrung, Koorungal and Forest Hill.

The chart below illustrates the pollutant loads of the treated effluent discharged from Council sewage treatment works. During the past couple of years the total discharge has been fairly constant. Approximately 14.5% of the waste water is reused for irrigation on parks and gardens with the remainder discharged to the river.

During the past year biological oxygen demand (BOD) increased by 36% and Nitrogen increased by 1%. All other parameters decreased in comparison to levels for the previous year.

Sewer 2010 Project

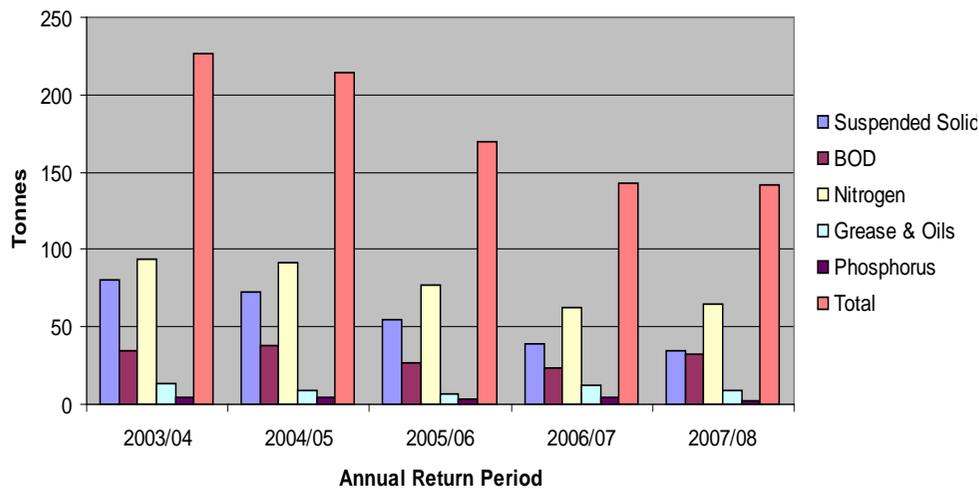
The Wagga Wagga Sewer 2010 Project is comprised of a 10 year Design, Build & Operate contract with Tenix Alliance Pty Ltd that commenced in January 2008.

The operation and augmentation of the Narrung Street and Koorungal Sewage Treatment Plants aims to meet higher regulatory standards in terms of the effluent discharged from the plants, and to cater for future growth in the city.

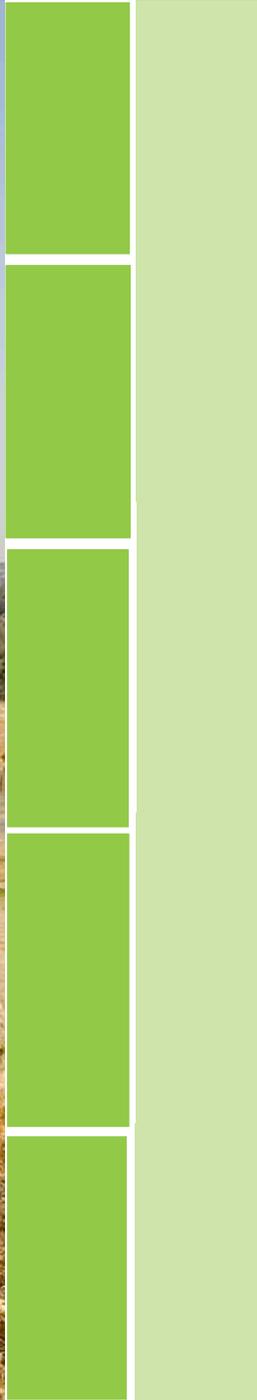
Septic Tanks

Council is continuing to convert septic tank systems to mains connected sewer systems, particularly in village communities. During 2007/2008, 29 septic tank systems were changed to main sewer connections. This included 20 in Collingullie, 5 in Lake Albert and 4 in Gumly Gumly. Additionally, there were 49 completed approvals given for the installation of new septic systems and upgrades of defective systems.

Council Sewerage Treatment Works - Treated Discharge to the Environment.



Source: Annual returns for Council's licensed treatment works. Note: The above graph shows that the combined outflow from the Koorungal and Narrung Street treatment works.



Heritage



Heritage

Aboriginal Heritage

The Wagga Wagga LGA lies within the heart of the southern Ngunurambang (Wiradjuri Country). Wiradjuri Heritage refers to a wide range of practices, materials and knowledge and includes artefacts, sites of significance and evidence of occupation such as scarred trees and stone implements. It also includes language, music, dance, song, designs, spiritual and ecological beliefs and more recently, recordings and written material (Wiradjuri Heritage Study, 2002).

As part of Council’s adopted statement of commitment to Indigenous Australians, Council continues to work closely with Indigenous Australians and values the input the Community provides to help set Council’s strategic direction and to deliver programs across all Council operations. This commitment has been demonstrated by the appointment of an Indigenous Development Officer.

The table below lists features of sites identified in the Aboriginal Heritage Information Management System.

Site Features	No. of Sites	No. of Features
Scarred (modified) trees	36	36
Artefact (stone, bone, shell, ceramic)	29	39
Earth mound/shell artefact	6	7
Earth mound/Heath	5	6
Burials	1	1
Quarry	1	1
Total	78	90

Source: Wiradjuri Heritage Study (2002).

Non-Aboriginal Heritage

The NSW Heritage Office and Council commenced jointly funding the Heritage Advisor position in the 1990s.

Council Officers take and arrange appointments for the Heritage Advisor to visit sites and listen to owner/occupiers, designers or builders objectives regarding a particular building or site.

The past year has seen the following activities undertaken:

- A review of the content of the Wagga Wagga Development Control Plan with regards to the importance of maintaining the character of the heritage area in both residential and commercial zones.
- Active local heritage grants scheme offering small grants for heritage works.
- Museum of the Riverina (Historic Council Chambers) – special exhibitions and regular open days.
- Steam and Vintage Museum (Botanic Gardens) –regular open days.



Events, Projects and Awards



Events, Projects and Awards

While environmental issues often spread well beyond our Local Government Area, it is important that we start at the local level to do what we can to care for, recover and preserve our local environment. Council was involved in the following activities or events during 2007/2008:

Clean Up Australia Day

On Clean Up Australia Day, held in March 2008, Wagga Wagga City Council recorded:

- 45 registered sites
- 4,156 volunteers from schools and the community
- 2.48 tonnes of rubbish collected
- The estimated value of the volunteer labour is \$48,970

Schools' Sustainability Challenge

Council has continued to co-ordinate a Schools' Sustainability Challenge programme. In this programme school students design and implement projects that help their schools reduce waste, improve energy efficiency, create habitat for wildlife, and help to control urban salinity. This year the number of schools participating in the programme has doubled to 13 schools.

REROC Plastic Bag Exchange

During May and June of 2008, Council staff participated in a plastic bag exchange programme organised by the Riverina Eastern Region Organization of Councils (REROC). About 28,000 plastic shopping bags were exchanged for 1,400 reusable shopping bags. These reusable bags have reduced the need for 1.4 million plastic bags because one reusable bag can effectively do the work of 1,000 plastic shopping bags.

National Tree Day

Council supports this day and works closely with Planet Ark and the Wagga Wagga Urban Landcare Group to ensure its success. Council supplies plants, free of charge, to child care centres, schools, and community groups who wish to plant on National Tree Day.

National Tree Day, held in July 2007 saw 15 schools and childcare centres across the Local Government Area plant 1,660 trees, shrubs, and grasses to improve school environments and natural habitat.

The community planting site was at Bomen on land adjacent to the Bomen treatment works. A total of 73 volunteers registered and planted 1,200 native trees and shrubs.

City/Country Schools Exchange

The City/Country Sustainability Schools exchange is an initiative that was established in 2007. Students from Schools within the Randwick Local Government Area travel to the Wagga Wagga Local Government Area for a 3 day stay to learn about sustainability issues in a regional setting. In the past this has included the River Restoration Project, the Hume Highway upgrade, Bush Regeneration and tree planting in association with National Tree Day events.

Keep Australia Beautiful Awards

The Council supported Tidy Towns Committee makes a number of local beautification awards, as well as submitting entries in the Keep Australia Beautiful competition.

This year Wagga Wagga received the following awards:

- Overall Award – Population of 50,000 + Third Place
- Civic Partnership Award – Senses Gardens First Place

Little Big Day Out

Little Big Day Out is a free annual community event that allows Wagga Wagga City Council the opportunity to showcase their services to the wider community. A host of fun and interactive activities aimed at 2 - 12 year olds entice some 4,000 people to the October event held in the Wollundry Lagoon precinct area. Included are displays on ways to reduce water use, recycling, threatened species, noxious weeds and urban salinity.

Landcare Action

Landcare Action is any volunteer action for the environment that is coordinated through the Council, a Landcare Group, or the Tidy Towns Committee.

There are a number of active Landcare Groups in the Local Government Area:

- Mangoplah
- Uranquinty
- Oura
- Galore
- Downside
- Kyeamba Valley
- Tarcutta Creek
- Wagga Wagga Urban

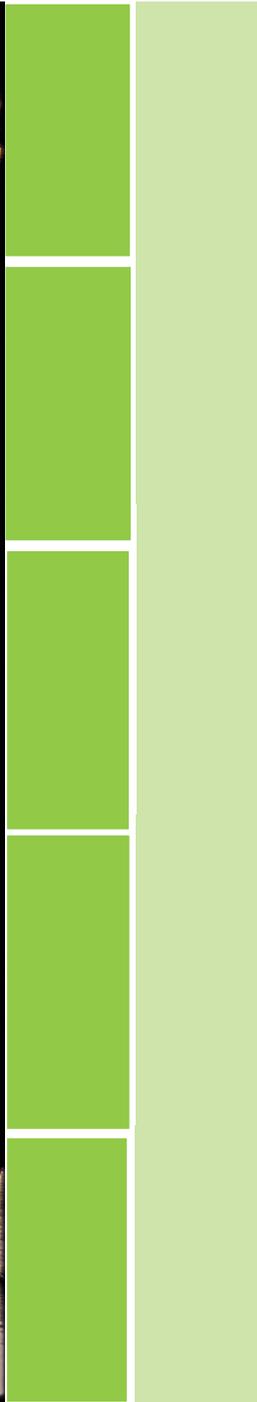
Maldhangilanna River Restoration Project

The Maldhangilanna (“working together”) River Restoration Project began in 2007. It provides a significant opportunity for Council to enhance its partnership with participating organisations and improve the environment along the Murrumbidgee River by:

- Removal of environmental weeds
- Restoration of native vegetation
- Restoration of river bank erosion and stability
- enhanced biodiversity and habitat re-establishment
- Increased community appreciation of, knowledge about and access to the Murrumbidgee River
- Improved planning and management of the riparian zone

Project Partners and Contributors include:

- Murrumbidgee Catchment Management Authority
- GTES (Provider of project participants and part wages support)
- Department of Employment and Work Relations (Funding for training support and on ground works)
- Australian Apprenticeship Centre – (Funding assistance for on ground works and materials)
- Riverina Institute of TAFE (Training Provider in Conservation and Land Management)
- Riverina Community College (potential Training Provider in Cultural Tourism).





Council has a new phone number 1300 292 442 as part of its ongoing improvements to communications and Customer Service, Council's phone number is also known as the PhoneWord 1300 2 WAGGA.

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