



City of Canterbury
City of Cultural Diversity

Theme 3

Healthy Environment



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Priority Projects

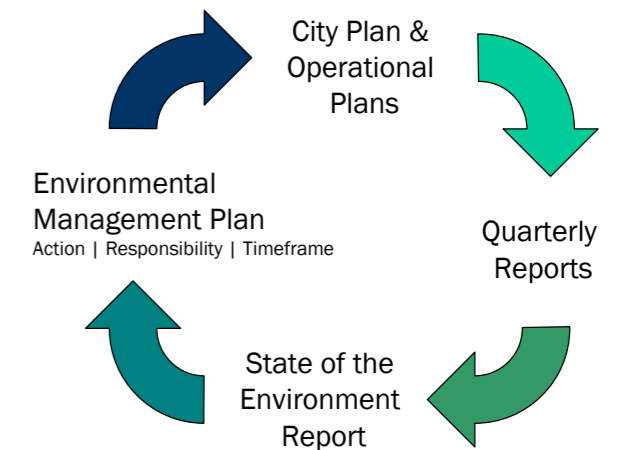
Priority Project	Status
Pollution controls to stop water entering the Cooks River	Work is continuing on the installation of a Gross Pollutant Trap at Ewen Park.
Improvements to the Cooks River foreshores	Riverbank stabilisation and construction of salt marsh area has been completed at Gough Whitlam Park, Earlwood.
Water and energy savings projects	Our Energy Savings Action Plan has been approved, and our Water Savings Action Plan is being considered by DECC.
Greenhouse Gas abatement schemes	Round 6 of our Kilowatt Cutters project has commenced. The Fridge Buyback scheme collections will re-commence in July 2008. The Little Green Steps program has passed the Expressions of Interest stage and a full application is being prepared.
Plans for alternative waste technologies	Input has been provided to plans being made at a regional level by SSROC for an Alternative Waste Technology facility.
Plans for Canterbury Town Centre and Canterbury Road	Impacts of the State Government's Sub-Regional Strategy for southern Sydney are being assessed. A Draft Public domain Strategy and Infrastructure Plan have been prepared, and a draft Development Control Plan has been adopted for public exhibition.

The City of Canterbury and the Environment

The City of Canterbury strives to ensure a healthy, sustainable and improving environment in the City area. We achieve this through a range of strategies. These include community-based environmental activities, the integration of environmental management goals into all aspects of our operations and the administration and enforcement of environmental controls and regulations to ensure that economic development is balanced against the need to protect and enhance the environmental values of the City.

The City of Canterbury is an organisation that is both a regulator and an operator. For example, as a regulator we assess development applications to ensure that approved developments meet environmental standards in relation to issues such as soil and water management and energy efficiency. We also monitor developments to ensure conditions of approval are complied with. As an operator, we are responsible for maintaining an extensive road and drainage infrastructure, parks and open space, running a fleet of cars and trucks and providing a waste collection service for nearly 45,000 households. Accordingly our impact on the environment is potentially substantial.

Linkage between Environmental Planning and Reporting



We have a management framework that is intended to meet regulatory, policy and community requirements and expectations. The Environmental Management Plan (EMP) outlines our environmental goals and strategies and lists actions that will support them. The Plan is prepared annually and is a key document supporting our Operating Plan.

State of the Environment Reporting

We produce an annual State of the Environment (SoE) report to meet the requirements of section 428 (2c) of the Local Government Act. The SoE report must address eight environmental sectors: land, water, biodiversity, air, waste, noise, indigenous heritage and non-indigenous heritage. It also informs the community about:

- Human impacts on the local environment;
- Activities conducted to protect and restore the local environment; and
- Our progress towards a more sustainable City.

The State of the Environment report is structured around the seven environmental themes of land, aquatic systems (water), biodiversity, air, waste, noise, and cultural (indigenous and non-indigenous) heritage. We have used the State-Pressure-Response (SPR) format as the basis for each theme. Supported with the assistance of indicators, this report describes the current state of the environment within the Canterbury Local Government Area, identifies pressures on this environment, and documents responses, or actions

by us, the community and other agencies operating within the Local Government Area to protect and enhance the Canterbury local environment.

In this Annual Report we have presented the State of the Environment report for each environmental theme in the part relevant to the Long Term Goal from our Strategic Plan. For instance, the 'Land' environmental theme relates to Long Term Goal 3.1 'Sustainable Urban Development'. The table below shows where the State of the Environment report for each environmental theme can be found in this Annual report.

State of the Environment Theme	Long Term Goal	Annual Report Page
Cultural Heritage	2.3 Celebration of Diversity	60
Land	3.1 Sustainable Urban Development	76
Waste	3.2 Responsible Use of Resources	81
Aquatic Systems	3.3 Healthy Natural Environment	85
Biodiversity	3.3 Healthy Natural Environment	91
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Environmental Performance

The Environmental Indicators Report Card, below, provides an overview of state of the environment in the City of Canterbury based on indicators both for the City and for the performance of Council. These

indicators are a work-in-progress and future SoE reports will develop and enhance the indicators used.

Environmental Indicators Report Card

Theme	Indicator	2003-04	2004-05	2005-06	2006-07	2007-08	Change
Land	Green open space (ha per 1000 population)	2.09	2.09	2.09	2.09	2.09	
Water	Council water consumption (kL)	148,025	114,279	154,284	121,151	103,981	
Air	Council greenhouse gas emission reduction through projects (tCO2e)	20,555	23,974	28,129	30,610	30,821	
Biodiversity	Area subject to community tree planting & bush regeneration (ha)	4.5	4.5	5.5	5.6	5.6	
	Number of volunteers participating in tree planting and Bushcare	158	115	162	192	341	
Waste	Domestic waste reused or recycled	32.5%	33.3%	38.8%	40.5%	42.5%	
Heritage	Number of heritage items identified in the City	144	144	144	144	144	
	Total number of heritage panels or plaques installed	35	38	38	38	38	

Includes tree planting and bush regeneration volunteers. Numbers are dependent on plants available and sites available for planting.

3.1 Sustainable urban development

Principal Activities

Services provided:	Service standards met
Tree Preservation Order administration – assessed 1,116 tree preservation applications	✓
Street tree management – completed 7,569 tree maintenance projects	✓
Statutory environmental reporting – prepared supplementary SoE Report	✓
Environmental grant programs – administered 11 grants	✓
Environmental audits – no audits conducted	✓
Development assessment – assessed 933 development applications	✓
Building certification – issued 328 building and occupation certificates	✓

Initiatives completed:

✓	Initiated work with SSROC on long term options for alternative waste technologies.
✓	Integrated reporting on Energy and Water Savings Action Plan with SoE reporting
✓	Reported on progress with Cities for Climate Protection Plus.
✓	Updated grey water policy
✓	Drafted planning instruments for Canterbury Town Centre.
✓	Drafted new residential planning controls.
✓	Finalise M5 residual lands rezoning study.
✓	Finalised Wollie Creek Regional Park rezoning study.
✓	Commenced preparation of a generic heritage DCP.



Mudcrabs bush regeneration work.

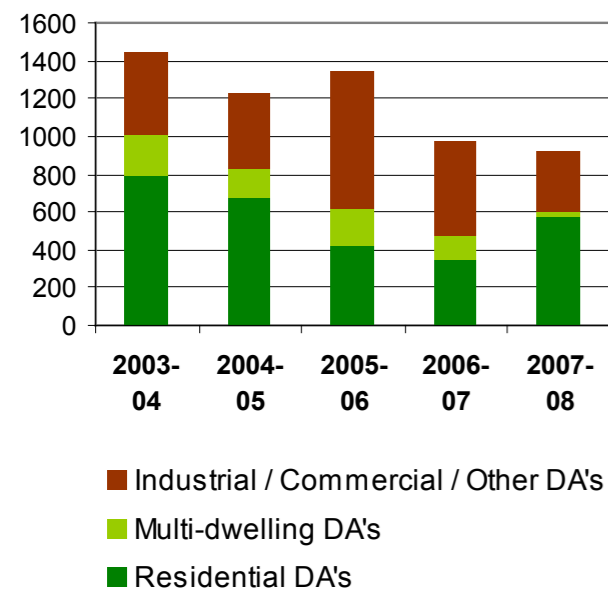
State of the environment - Land

Trends at a glance

Indicator	2003-04	2004-05	2005-06	2006-07	2007-08
Residential DA's	791	678	428	352	579
Multi Dwelling DA	214	150	184	126	22
Industrial	12	11	78	35	34
Commercial	32	42	163	192	161
Other	395	354	495	228	129
Total DA's¹	1444	1235	1348	978	925
No. of street trees planted	New indicator 05/06		547	866	642

¹ New method for recording and reporting DA figures commenced 05/06.

Development Applications



Zoning Map of Canterbury Local Government Area



State

The City of Canterbury is located within the middle ring of suburbs in the Sydney Metropolitan Area, between 10 and 20 kilometres south west of the CBD. It has an area of 33.4 square kilometres.

The City is largely residential with some pockets of industrial and retail development. 53% of residential dwellings are separate houses, 11% are semi-detached, row or terrace houses, and 36% are units, flats or apartments. (ABS Census 2006).

The City also contains open space including recreational and bushland areas such as Gough Whitlam Park and the Wolli Creek bushland.

Residential development continues to account for the bulk of development in the City, with residential and multi-dwelling development applications (DA's) accounting for 65% of all DA's received at Council in 2007/08. The number of non-residential development applications dropped slightly compared to 2006/07.

Pressure

The City is experiencing incremental changes to its housing stock and density. This is a reflection of many factors including metropolitan growth demands, urban consolidation and changing household needs, expectations and aspirations. Since the mid 1990s State Government policy has encouraged multi-unit residential development in the inner and middle ring Sydney suburbs. Canterbury has responded to this trend, and one of the City's major land use issues is the impact of multi-dwelling development, which includes dual occupancies, townhouses and villa homes, and flats.

The NSW Government's long term plan for Sydney's growth, known as the 'Metropolitan Strategy', was released in late 2005. The Strategy identifies the South West of Sydney, including the City of Canterbury, to be a key growth corridor for job creation and residential development. We will be guided by the strategy in our future planning.

Response

Strategic Planning

We continually review our zonings, planning strategies and policies in relation to land uses.

Work on a new comprehensive **Local Environmental Plan (LEP)** for the entire City has commenced. This is being done in accordance with requirements set by the NSW Department of Planning and is due for completion in 2011.

Major planning studies for the Canterbury Road Corridor, Canterbury Town Centre, and for other town centres continue to be progressed.

New Development Control Plans (DCPs) for **Single Unit Dwelling Houses**, development in the **Ashbury Special Character Area** and **Child Care Centres** were implemented in 2007.

Development controls for medium density residential housing (duplexes, villa homes, town houses and apartments) are currently under review and scheduled for completion in 2009.

During the reporting period, the **Environmental Assessment program** was put on hold due to competing tasks and resource issues. The program will be recommenced in 2009. The program is implemented on a precinct by precinct basis and involves the environmental auditing of businesses. In the previous reporting period we targeted service station sites operating in the City. Our investigation focused on ensuring that sufficient preventative measures were in place to minimise spillages and therefore contamination of the groundwater.

Further assessments of businesses in other parts of the City have been included in our 2008/09 Operating Plan.

Contaminated Land

In NSW, the management of contaminated land is shared by the Department of Environment and Climate Change (DECC) and planning consent authorities (usually local councils).

We have implemented a **Contaminated Land Policy** to manage land contamination within the City of Canterbury and to integrate land contamination management into the planning and development process.

There are currently six sites in the City of Canterbury subject to investigation or remediation notices issued under the **Contaminated Land Management Act**.

Contaminated Sites in the City of Canterbury

Suburb	Address	Site Name
Campsie	403 Canterbury Road	Cheapa Petrol, Campsie
Campsie	1 Una Street	Former Residential Property
Campsie	112 Duke Street	Residential Property
Campsie	60 Charlotte Street	Sunbeam Factory
Canterbury	13-19 Canterbury Road	Metro Petroleum Service Station
Hurlstone Park	618 New Canterbury Road	Speedway Fuels

Action Plan

Action	Outcome/Benefits	Due	Responsibility
City-wide Local Environment Plan (LEP)	The city-wide LEP will form a single new planning instrument to replace the six instruments currently operating. Implementing a single LEP will provide a streamlined and consistent planning control for the entire city.	2011	Urban Planning
Canterbury Town centre – Draft DCP, PDS & IFS	Preparation of new planning and development controls to facilitate urban renewal of this area. A local environmental plan to rezone this land is currently under preparation.	December 2008	Urban Planning
Town Centres Study – draft DCP	Finalisation of replacement development controls and land use strategies for 10 town centers.	December 2008	Urban Planning
Contribute to SSROC Planners Working Group Sydney Metropolitan Strategy Project	Ongoing contact with other planners within SSROC allows for greater collaboration and information sharing.	June 2009	Urban Planning
DCP review program – Draft Residential DCPs	Preparation of replacement development controls for all forms of residential development in residential zones.	June 2009	Urban Planning
Canterbury Road Study – Zoning strategy & DCP	The zoning strategy will inform preparation of the comprehensive city-wide LEP.	June 2009	Urban Planning
Flood Study	This will inform preparation of the comprehensive city-wide LEP.	June 2009	Urban Planning
Environmental Assessment Program	Increased awareness of environmental issues and regulations within the business community.	June 2009	Environmental Compliance Section

Planning Agreements

There were no planning agreements made or in force during 2007-08.

3.2 Responsible use of resources

Principal Activities

Services provided:	Service standards met
Pre-booked clean up – provided 13,967 pick-up services	✓
Domestic waste, recycling and greenwaste – provided 4,862,000 collection services	✓
Waste Information – held 6 waste information stalls	✓
Home composting – held 14 home composting courses	✓
Initiatives completed:	
✓ Facilitated National Recycling Week.	
✓ Facilitated Clean Up Australia Day.	
✓ Facilitated Clean-Out Household Chemical Collection.	
✓ Implemented Council's Waste Reduction and Procurement Policy.	



Pre-booked household rubbish clean-up.

State of the environment - Waste

Trends at a glance

Indicator	2003-04	2004-05	2005-06	2006-07	2007-08
Domestic Rubbish (tonnes)	32,523	32,591	31,113	30,876	32,984
Domestic Recycling (tonnes)	11,438	11,627	11,792	12,054	13,501
Green waste (tonnes)	4,210	4,648	7951	8,967	10,433
Trade waste, dumped rubbish and pre-booked clean up (tonnes)		New indicator 06/07		3,557	6,526
Total waste (tonnes) ¹	48,172	48,866	50,857	55,454	63,444
Number of Council managed GPT's	New indicator 04/05		3	3	3
Number of resident cleanup volunteers ³	New indicator 04/05		15	180 ²	415
Rubbish collected by cleanup volunteers (tonnes)	New indicator 04/05		7.2	10	12.4
Rubbish collected by CREW (tonnes)	New indicator 04/05		47	24	20
				20	30.7

¹ This figure does not include street sweepings

² Due to establishment of MUDCRABS group

³ Volunteers include MUDCRABS, & Canterbury Girls High. Assumes each bag collected weighs 15kgs.

State

The amount of domestic rubbish sent to landfill increased in 2007-08 by 2,108 tonnes on last year. The amount of domestic recycling increased by 1447 tonnes, indicating that recycling education campaigns are having the desired effect.

Greenwaste collected increased by 1,476 tonnes, which is recycled into mulch and used on Council managed parks and gardens. The proportion of total waste diverted from landfill decreased to 37.7% (down from 37.9% in 06-07 and 38.8% in 05-06).

According to the NSW Department of Environment and Climate Change's Recycling Calculator, the

13,501 tonnes of recyclable materials collected by us in 2007-08 saved:

- 37,205 m³ of landfill space;
- 6,779 tonnes of greenhouse gasses, equal to taking 1,628 cars permanently off the road; and
- 223,623 kilolitres of water or 4,066 backyard swimming pools full of water.

Pressure

The current pressures on waste include:

- Increased generation of domestic waste;
- Contamination of recycling;
- Managing waste in Multi Occupancy Dwellings;
- Illegal dumping; and
- Litter and stormwater pollution in the Cooks River

The City of Canterbury community is a very diverse one with high numbers of transient residents, a high percentage of multi unit dwellings, a high percentage of renters, as well as a large proportion of residents from culturally and linguistically diverse (CALD) backgrounds. As a result, we have implemented projects to target the community, eg the Waste Info Kit. We also ensure that waste education materials produced contain key information in a number of languages with clear and simple messages and photographs are used where possible.

Response

Education

Educational activities designed to target specific groups in the community that were delivered over the reporting period include:

- Review and reconstruction of Waste Info Kit for local real estate agents and strata managers
- A poster competition with the theme “Recycling - It’s Out Future” for local children
- Running the “Waste Watchers” program at schools
- National Recycling Week in November 2007
- Household Chemical “CleanOut” drop-off weekend - More than 21 tonnes of chemicals were handed in
- Clean Up Australia Day where approximately 9 tonnes of rubbish was collected
- Information stalls, displays and giveaways at local community events such as Australia Day, Campsie Food Festival, the Haldon Street Festival and Local Government Week
- Attendance for 2 days and support of Riverworks Environmental Art Competition
- Earthworks, a five day waste minimisation course was run for residents at Canterbury Public School for 22 residents, Ashbury Senior Citizens for 9 residents and Kingsgrove Gardens R Us for 6 residents. Two hour individual workshops

were also held. Earthworks was also held for the Triploi and Mena Association over 3 weeks using bilingual educators to present the information in Arabic

- Regular 2 hour workshops were held throughout 2007-08 on Composting Worm Farming, Natural Cleaning and Smart Shopping and one workshop and Recycling and Art
- WSN Recycling Tours were run and have been very successful
- Successfully obtained funding to run a butt litter campaign in October
- Review of the Waste Reduction and Procurement Policy (WRAPP)



Recycle Girl - assists us to promote recycling

Waste Reduction and Recycling

A comprehensive contamination management program was carried out in cooperation with our waste contractor JJ Richards. Our Waste Audit/ Education Officers assist the community to recycle correctly.

A trial composting program of the Day Shift mechanical broom sweepings is producing a quality product that can be reused in our parks and gardens. We generate about 25 tonnes of sweepings a week and around 20 tonnes of this is suitable for composting. One Compost Giveaway Day was held to return compost to the community.

Currently Pre-Booked Clean Up’s are averaging 50-75 a day with every resident eligible for two free clean ups a year. Contamination rates for the garden vegetation bin continue to remain low, which is a good result.



The introduction of a garden vegetation bin system in 2005 has been successful in diverting waste from landfill.

Our Waste Guides have been translated into six community languages to compliment other education materials.

Community Cleanups

Mudcrabs, a community based group of volunteers, continue to clean up along the Cooks River with an estimated 30-35 volunteers each month. Overall 370 bags (equal to 5.5 tonnes) of rubbish and 18 shopping trolleys were collected during the reporting period.

The Periodic Detention Centre group know as CREW (Cooks River Environmental Workers) continued to collect rubbish along the Cooks River, collecting 31 tonnes in 07/08.

3.3 Healthy natural environment

Principal Activities

Services provided:	Service standards met
Environmental news articles – issued 4 newsletters	✓
Leachate management – treated 4 million litres	✓
Weed control – undertook 377 inspection and treatment projects	✓
Pollution control device cleans – completed 6 gross pollutant trap clean outs	✓
Storm water infrastructure cleaning – completed 585 gully pit clean outs	✓

Initiatives completed:	
✓ Implemented Cooks River Interpretation Strategy.	
✓ Continued to facilitate Riverscience monitoring.	
✓ Implemented lower Wolli Creek project in partnership with Rockdale Council, DEC and WCPS.	
✓ Facilitated Cooks River “Adopt a patch” program.	
✓ Facilitated Community partnership bush regeneration projects.	



Cooks River, the largest waterway which runs through our City.

State of the environment - Aquatic Systems

Trends at a glance

Indicator	2003-04	2004-05	2005-06	2006-07	2007-08
Water use: Council (ML ¹)	154.4	114.5	154.3	121.2	104.0
Water use: Houses /units (ML)	10,891	10,459	10,585	10,358	10,098
Water use: All uses (ML)³	12,708	12,111	12,265	12,265	11,649
Rainwater tank installations ²	27	68	113	153	162
Washing machine rebates	110	N/A	144	963	1,493
WaterFix participants	9,02	1,191	2,296	2,776	1,196
Do it yourself kit participants	New indicator 04/05	1	967	3,206	1,524
Love Your Garden participants	New indicator 04/05	6	3	36	112
Water pollution complaints to Council	New indicator 04/05	65	54	115	72

¹ one ML is a million litres or 1,000 kL.

² Based on the number of rebates granted by Sydney Water, this figure should be regarded as a minimum, as most rainwater tank installations do not require a Development Application.

³ Includes Council, residential, commercial and industrial use.

State River Systems

The City of Canterbury contains about 24% of the catchment of the Cooks River, as well as a small portion of the Georges River Catchment, specifically the upper reaches of Salt Pan Creek.

The most recent Sydney Water Performance Assessment Monitoring Program Data Report (2006-07) reports on water quality monitoring in the Cooks River and Wolli Creek. The 2007-08 Sydney Water report was not available when the SoE report was printed.

Cooks River and Wolli Creek Recreational Water Quality

The Cooks River catchment contains extensive urban and industrial development. Water quality

throughout most of the waterway tends to be poor. Areas close to the mouth of the river receive good tidal flushing, and water in this section is of better quality.

In 2007-08, the median dry-weather faecal coliforms exceeded the primary contact recreational guidelines (ANZECC 2000) of 150 cfu/100 mL at three test sites on the Cooks River. Testing for faecal coliforms was not conducted at the fourth site.

From previous studies conducted by Sydney Water, it is known that faecal coliform results are highly variable and greatly influenced by heavy rain and sewage overflows. However, levels in the lower estuary generally return to levels acceptable for swimming within three days after rainfall, as bacteria die quickly in salt water and are diluted and

dispersed by tidal movement. In the upper estuary and freshwater sections of the waterway bacteria live longer and are not as readily removed by tidal action. Hence, levels can remain unacceptable for swimming for longer periods after rainfall.

Eutrophication

During dry weather the indicator level for one or more of the nutrients and other water quality variables measured was exceeded on more than 75% of dry-weather sampling days at all four sites monitored in 2004-05. These results suggest that there is a high potential for eutrophication in all of the in non-tidal zones of the Cooks River.

Ecosystem health: estuarine biota

Intertidal communities were only slightly disturbed at Wollie Creek, following substantial recovery in recent years. The improvements will require further monitoring to determine whether they represent a long term improvement related to ongoing improved water quality, although the current trend suggests that these improvements may be sustained.

The 2007 RiverScience report found that overall the Cooks River is in poor ecological health and has very low diversity and abundance of organisms compared to other estuarine systems in the Sydney region. However, the Cooks River was found to have healthy saltmarshes and mangrove forests and an increasing crab population.

Water Consumption

The introduction of mandatory water restrictions in October 2003 has been a significant factor in reducing household water consumption.

In 2007-08 Council's water consumption dropped by 14% compared to last year. In 2005-06 we experienced increased consumption primarily at our pools and parks and reserves.

Opportunities for reducing water consumption were identified in the 2006 Water Saving Technical Review (completed as part of our draft Water Savings Action Plan). These actions will be progressively implemented from 2007-08 onwards.

Further reduction of council's water consumption is expected with the completion of water actions included in the Energy Performance Contract.

Pressure

- Pressures on council's water use include:
- Maintaining the quality of playing fields;
- Making playing fields available for longer periods and for more users; and
- Providing swimming pools at two aquatic centers.

Response

Planning and Administration

We participate in the Cooks River Foreshore Working Group (CRFWG), a network of local councils and state government agencies with management responsibilities for the river foreshore. A principal function of the working group is to coordinate the implementation of the Cooks River Foreshore Strategic Plan, which identifies 121 strategies for improving and better managing Cooks River. The activities of the CRFWG are reported separately in an annual report prepared by the CRFWG Coordinator. A copy of the report is available from Council's website.

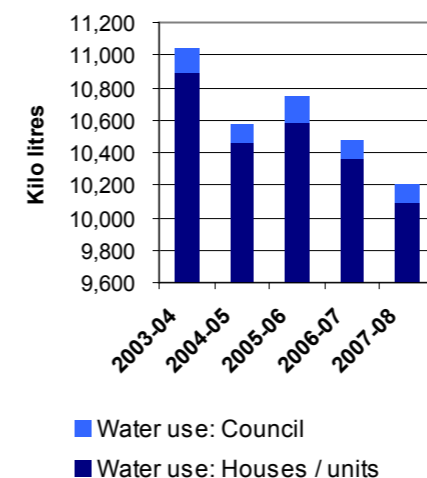
We have completed a draft Water Savings Action Plan. The Plan is a requirement of the State Government's Metropolitan Water Plan for all Sydney Metropolitan Councils to complete. This provides an overall strategic and management framework to reduce water usage at our operations. We are currently working with DECC to finalise the Plan.

Canterbury residents have helped Sydney save 18 million litres of water a year by implementing water saving initiatives as part of the NSW Government's Metropolitan Water Plan. Across Canterbury, in 2007-08, 162 households received a rainwater tank rebate from Sydney Water, 1,493 households received a washing machine rebate and 112 households participated in the Love Your Garden program.

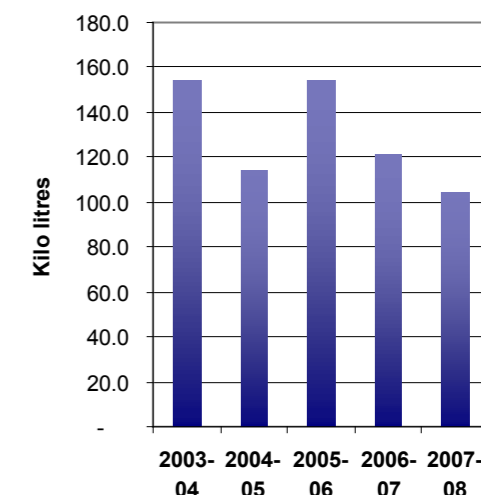
Water and Riverbank Management

Continuous Deflection Separators (CDS), Gross Pollutant Traps (GPT) and trash racks are types of stormwater pollution traps installed around the City. The traps are designed to prevent pollution

Council & Residential Water Use



Council Water Use



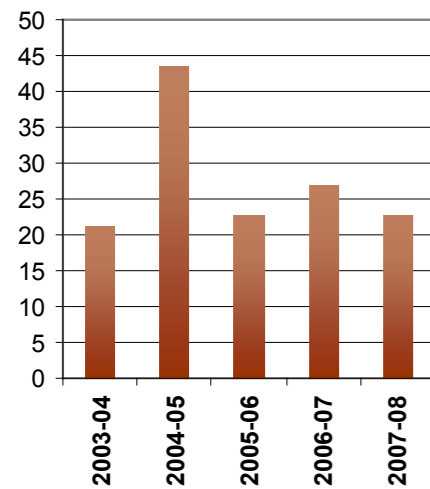
such as litter, organic matter and large sediments from entering waterways. The varied amounts of pollution collected year to year could be due to changing rain patterns and increased storm events as well as the varying contributions of pollution from town centre commercial precincts.

Construction of a new GPT at Ewen Park started in 2007-08. It is anticipated that this GPT will commence operation in 2008-09.

Quantities of pollution removed from Council's CDS's (tonnes per year)

CDS	Catchment (ha)	04-05	05-06	06-07	07-08
Phillips Ave	74	22.1	9.90	15.0	12.0
Myall Ave	30	21.2	12.9	11.9	10.9
Total	104	43.3	22.8	26.9	22.9

Pollution removed from CDS's (tonnes per year)



Riverbank restoration works on the Cooks River at Gough Whitlam Park, Earlwood has been completed. We provided matching funds to an Estuary Management Program grant received from the former Department of Infrastructure, Planning and Natural Resources.

We have completed rehabilitation works, including rock armoring at Paperbark Gully and Bray Avenue. These projects have been supported by funding from the Australian Government Water Fund and the Cooks River Foreshore Improvement Program.

There are five water efficient Excel-Loo toilet block facilities in the City of Canterbury. These facilities have resulted in a reduction in water use from the five year average of 6.7 kL/day to 0.4 kL/day each, saving a total of 31 kL per day.

Under the Energy Performance Contract, water harvesting at the depot came on line during the reporting period.

Community Based Programs

The **Kilowatt Cutters** project is a council run energy and water saving program targeted to local residents. Whilst primarily focusing on energy and greenhouse gas reduction, it has also reduced the total water consumption of all 70 participating households by 2,655 kl of water a year, or the equivalent of 729 litres per household per week.

Interpretation and Promotion

RiverLife: Cooks River Interpretive Tour Guides is a project managed by Canterbury, Strathfield, and Marrickville Councils. The aim of the project is to support and train members of the community to undertake free guided tours incorporating sustainability along the Cooks River. Around 19

tours were completed in 2007-08, with an average of 14 participants in each tour.

We are also a project partner in the **Cooks River Interpretation Strategy** which has been completed. The Strategy seeks to provide a coordinated approach to improving the river's natural and cultural values.



Paperbark Gully, is nestled along Wolli Creek.

Action Plan

Action	Outcome/Benefits	Due	Responsibility
Ensure all Council's pollution control devices are well maintained	We are responsible for cleaning three pollution control devices, which prevent litter and large pollutants from entering local waterways.	Each quarter	City Works
Develop and implement stormwater management plans	Stormwater management plans allow councils to develop an integrated approach to urban stormwater quality and protect waterways from pollution carried in stormwater runoff.	June 2009	Assets / Forward Planning
Integrate water sensitive urban design principles into Council policy.	This will ensure a coordinated approach to water sensitive urban design is implemented throughout council.	June 2009	Environmental Policy
Participate in State and regional programs for increasing the uptake of water conserving or efficient devices and appliances by residents	A coordinated catchment wide approach to managing the Cooks River.	June 2009	Environmental Policy
Continue to promote community water conservation through environmental education programs.	Ongoing education, including in languages other than English, will contribute to a long term reduction in water use	June 2009	Environmental Policy

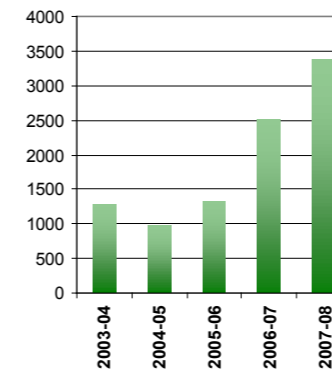
State of the environment - Biodiversity

Trends at a glance

Indicator	2003-04	2004-05	2005-06	2006-07	2007-08
Number of community tree planting days	12	9	9	9	9
Trees planted by volunteers	1,270	980	1,325	2,523	3,379
Number of community tree planting volunteers*	158	115	162	192	129

* Participants are counted at each planting event. If the same person participates in more than one event, they are reported as more than one participant.

Trees planted by volunteers



State

Biodiversity refers to the variety of species, populations, habitats and ecosystems. Extensive urban development means there is little of the original ecosystems left to support native plants and animals in Canterbury LGA. However public and private open space, road reservations and railway corridors have provided areas for native plants and animals to survive. Significant areas of remnant bushland exist on the Cooks River at Campsie, around Wolli Creek east of Bexley Road, the M5 corridor at Kingsgrove and along the eastern arm of Salt Pan Creek.

Pressure

Understanding trends in biodiversity and natural areas within the City is difficult given the small extent of bushland areas and the absence of formal monitoring of biodiversity across most of the City. Some monitoring such as species recording is undertaken by community groups in the Wolli Creek Valley.

Pressures on biodiversity include feral and domestic animals, removal of natural bush, weed invasion, and lack of habitat due to the City's long history of urbanisation.

Response

Planning and Administration

The implementation of the Bushland Plan of Management for the Campsie Bushland Remnant commenced and will be ongoing to ensure that this rare piece of remnant Cooks River / Castlereagh Ironbark Forest vegetation at Second Avenue Campsie is managed to protect the endangered ecological community for the benefit of future generations. A National Trust bush regeneration team carried out a total of 289 hours of work in the remnant. The work program consisted of maintaining the core remnant and clearing the edges of weeds to encourage continuing extension of the native species.

A grant application to the Department of Primary Industries was awarded to fund a part-time Noxious Weeds Officer to be shared by three councils. The officer will carry out community and staff education and weeds management coordination on behalf of the three councils.

RiverScience, an ecological monitoring program for the Cooks River, is managed by four participating councils: Canterbury, Marrickville, Rockdale and Kogarah. It was established in late 2005 with the support of a Cooks River Foreshore Improvement Program Grant. Round two of monitoring was undertaken in 2007. The report found that overall the Cooks River is in poor ecological health and has very low diversity and abundance of organisms compared to other estuarine systems in the Sydney region. However, the Cooks River was found to have healthy saltmarshes and mangrove forests and an increasing crab population.

Conservation and Restoration

The largest areas of bushland remaining in Canterbury are the Wolli Creek Valley and the upper

reaches of Salt Pan Creek. Both of these areas are shared with neighbouring councils. In March 2004 the NSW Government announced the establishment of the Wolli Creek Regional Park which covers 60 hectares of land primarily on the northern side of the creek and which will be managed by the Department of Environment and Climate Change (Parks and Wildlife Division). Seven (7) hectares have already been gazetted as a Regional Park, and the remaining 53 hectares are proposed to be gazetted in 2008. Council will be transferring, without charge, about one third of the total land area to help create this park.

In partnership with the Wolli Creek Preservation Society, DECC and Sydney Metro CMA, we obtained a GreenWeb grant to fill in a missing link in the vegetation corridor along Wolli Creek at Turella. This involves the removal of weeds and replacement with locally provenance natives. Work continues but approximately 4,000 natives have been planted replacing some of the grassed area with native vegetation along 140m of Wolli Creek at Turella.

Also in partnership with the Wolli Creek Preservation Society, we commenced stage three of the Bray Avenue restoration project near Earlwood. This is being supported by a grant from Cooks River Foreshore Improvement Program and will focus on weed control and stormwater management.

We administer a voluntary Bushcare program to regenerate endangered ecological communities. 212 local volunteers conduct Bushcare at three sites:

- Cumberland Plain Woodland at Bell Street, Riverwood
- Turpentine-Ironbark Woodland at Peace Park, Ashbury.
- Sydney Sandstone Vegetation at Cup and Saucer Creek on Anzac St, Canterbury

The Mudcrabs (Cooks River Eco-volunteers), Chinese Australian Services Society (CASS) and the Wolli Creek Preservation Society also assisted with conservation and restoration through regular weeding, planting and rubbish collection sessions at various parks and reserves throughout the Canterbury local government area.

We also hosted a one-day 'Bushcare Essentials' training course for volunteers from the southwest Sydney area. This is part of an ongoing program for Bushcare volunteer training and is being supported by twelve councils, the Sydney Metropolitan CMA and Ryde TAFE.

Council continued to contract the National Trust to undertake bush regeneration at Nanny Goat Hill, Earlwood (Sydney Sandstone vegetation) and Second Avenue, Campsie (Cooks River/Castlereagh Ironbark Forest).

Ludwigia and Alligator Weed control along Wolli Creek continued during the reporting period as part of a Sydney Central Regional Weeds Committee Project which was half funded by a Department of Primary Industries grant.

We conducted nine community tree and shrub planting days in which 129 residents participated. Approximately 3,379 trees, shrubs and groundcovers were planted during the reporting period.

Access and Recreation

In August 2004 we began construction of a regional wetland at Riverwood in the upper catchment of Salt Pan Creek. As well as improving water quality the wetland is expected to provide habitat for birds and aquatic animals. Ongoing community planting days will increase the biodiversity of the wetland while

the installation of additional recreation equipment such as barbecues, chairs and a bridge will enhance community use.

Interpretation and Promotion

We completed a Backyard Buddies Workshop with the assistance of the Environmental Trust and the Ethnic Communities Council. It involved a workshop at the Chinese Australian Services Society on local fauna followed by a wildlife show.

The annual Spring Garden Competition contains biodiversity enhancing categories such as best native garden and water wise garden. Since the introduction of the Sustainable Gardening Workshops, judges have noted an increase in water wise, eco friendly practices in gardens in our City.

Action Plan

Action	Outcome/benefits	Due	Responsibility
Pursue and support opportunities for grant funding of weed and pest animal management programs.	One of the threats to biodiversity is weeds and introduced species. This action will help to reduce such threats.	June 2009	Environmental Policy
Continue to promote community biodiversity conservation programs including Bushcare and Council's "adopt a patch" program on the Cooks River.	Increasing areas of native vegetation along the Cooks River and its tributaries will contribute to the biodiversity in the city and the viability of species	June 2009	Environmental Policy
Subject to external funding, continue implementation of the lower Wolli Creek project, in partnership with Rockdale CC, DEC and WCPS.	This project involves revegetation along the Cooks River, the weeding of wildlife corridors, and surveying of local species.	June 2009	Environmental Policy
Carry out street tree maintenance in accordance with the adopted roster.	A coordinated approach within the catchment.	June 2009	Parks and Property



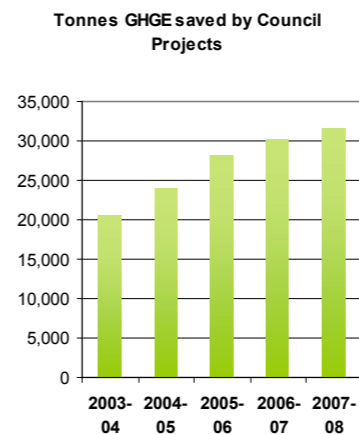
Restoring the Cooks River with bank naturalisation work.

State of the environment - Air

Trends at a glance

Indicator	2003-04	2004-05	2005-06	2006-07	2007-08
Tonnes GHGE ¹ saved by Council projects	20,555	23,974	28,129	30,148	31,673
Cumulative tonnes GHGE saved by Council projects	52,575	76,549	104,678	134,824	166,497
Air pollution complaints to New Indicator council	04/05	81	24	97	67

¹ Green House Gas Emissions



State

The City of Canterbury is located within an air shed that extends over the greater metropolitan region. Local air issues are influenced by activities and weather patterns across the region and in some cases globally.

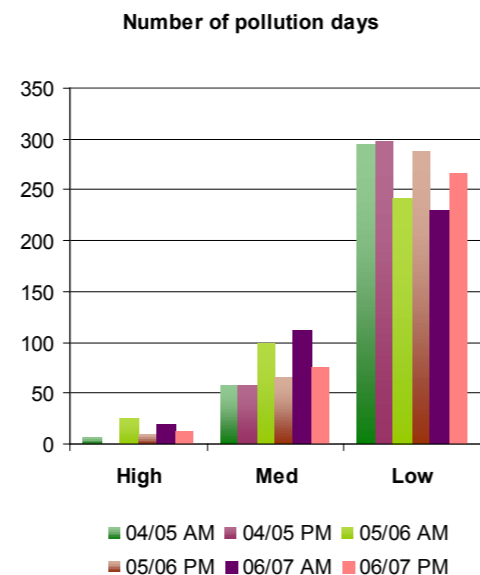
In the 2006 NSW State of the Environment Report, it was noted that ozone and particulate pollution are a continuing concern for Sydney and are set to rise with population increases in Sydney's North West and South West.

In addition to ozone and particulate pollution, four other pollutants are of note because of their potential impact on human health: carbon monoxide, which affects the uptake of oxygen in blood; nitrogen dioxide and sulfur dioxide, which act as respiratory irritants; and lead, which can impair intellectual development in children.

In general, no excess of ambient air quality standards associated with emissions from road tunnels have been detected. A study by NSW Health concluded

that nitrogen dioxide levels in road tunnels may be of concern for people with asthma travelling in open vehicles (including motorcycles) when transit times are likely to be prolonged. Closing the vehicle windows and vents (and re-circulating air) significantly reduces exposure to all vehicle pollutants.

The Regional Pollution Index monitoring station in South West Sydney found that the trend is for annual increases in high and medium pollution days, and less low pollution days per year.



Number of pollution days

Pollution levels	2005-06		2006-07		2007-08	
	AM	PM	AM	PM	AM	PM
High	25	9	25	9	1	3
Medium	99	67	99	67	34	44
Low	241	289	241	289	329	317

Pressure

The major air pollution sources within the Canterbury City area are motor vehicles, wood fire heaters, and industrial and commercial activities. These pollutant sources are also indicative of the greater metropolitan region.

Motor vehicles remain the most significant source of urban air pollution. Although cleaner emission technology in newer cars has reduced emissions, the continuing growth in the use of vehicles has offset these gains.

Response

Regional Air Projects

Due to the region's central position in relation to Sydney transport infrastructure air quality improvement is an important priority for member councils of the Southern Sydney Regional Organisation of Councils (SSROC). SSROC is an association of eleven local councils in the southern area of Sydney. It provides a forum for member councils to deal with issues they all have in common, particularly those that cross boundaries.

Greenhouse Gas Abatement

Council's Kilowatt Cutters project has reduced the energy consumption of each of the 70 participating households by 97,895 kWh of electricity and 171,336 MJ of gas. It has also saved 132 tonnes of greenhouse gas emissions.

We participate in the Cities for Climate Protection (CCPTM) Plus program, an international program to assist local government to reduce greenhouse gas emissions. In Australia, the program is delivered by the International Council for Local

Environmental Initiatives (ICLEI), in collaboration with the Department of Climate Change, formerly the Australian Greenhouse Office.

All water and energy saving components of the Energy Performance Contract have been completed. This commenced in early 2006 and included the installation of a solar heating system at Roselands and Canterbury Pools, lighting energy saving initiatives at eight other sites and power factor correction at four sites.



Action Plan

Action	Outcome/Benefits	Due	Responsibility
Support regional initiatives to increase community awareness about energy efficiency and conservation, particularly in at least one regional initiative	Regional projects may be coordinated via SSROC or CRFWG.	June 2009	Environmental Policy
Continue to participate in regional programs to reduce community impacts on air quality	Ongoing education and promotion will result in a reduction of energy consumption.	June 2009	Environmental Policy
Continue one community or council based project as part of CCP Plus	Implementation will enable council to continue with greenhouse gas abatement for the next several years.	June 2009	Environmental Policy



State of the environment - Noise

Trends at a glance

Indicator	2003-04	2004-05	2005-06	2006-07	2007-08
Noise complaints to Council	354	315	111	304	294

State

We have a regulatory role in preventing unwanted and offensive noise through the development approval system and in enforcing development consent conditions and noise pollution regulations.

During the reporting period we received 294 noise pollution complaints. The number of complaints has been generally over the last two reporting periods and coincides with a decline in environmental complaints generally.

Pressure

Of the 294 complaints received, 184 related to barking dogs. Since the last reporting period complaints about barking dogs increased slightly. Other significant sources of noise complaints are construction noise and freight trains.

Response

We annually review our codes, environmental assessment program and complaints procedures, standard development assessment conditions and education strategies to reflect current legislation and noise management practices.

Noise complaints to Council

