

State of the environment report



2011 - 2012

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Abbreviations

CMA	Catchment Management Authority
DCP	Development Control Plan
DECCW	NSW Department of Environment, Climate Change and Water (former name of the NSW Office of Environment and Heritage)
DLG	NSW Department of Local Government
DP&I	NSW Department of Planning and Infrastructure
EPA	Environment Protection Authority
<i>EP&A Act</i>	<i>NSW Environmental Planning and Assessment Act 1979</i>
<i>EPBC Act</i>	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
GHG	Greenhouse gas emission
GPT	Gross pollutant trap
GRCCC	Georges River Combined Councils Committee
I&I NSW	Industry and Investment NSW
kWh	Kilowatt hour
LEP	Local Environment Plan
LGA	Local Government Area
NSW	New South Wales
<i>FM Act</i>	<i>NSW Fisheries Management Act 1995</i>
<i>TSC Act</i>	<i>NSW Threatened Species Conservation Act 1995</i>
OEH	NSW Office of Environment and Heritage
RFS	NSW Rural Fire Service
SoE	State of the Environment Report
USP	Urban Sustainability Project
WQMP	Water Quality Monitoring Program
WSUD	Water Sensitive Urban Design



Introduction

The SoE Report is compiled each financial year by Council in accordance with requirements of the *NSW Local Government Act 1993*. The SoE reporting process advocates inclusion of Ecologically Sustainable Development principles into Council's regulatory and service functions. It also serves as a community engagement and education tool, providing a snap-shot of information to local residents of the pressures impacting on the environment within the local area, and Council's major achievements in response to these pressures.

The 2011-2012 SoE is a supplementary report, which provides an overview of the current state of eight key environmental areas within the Campbelltown LGA:

- Our Land
- Our Biodiversity
- Our Waste
- Our Water
- Our Air
- Our Sustainability
- Our Heritage
- Our Community.

Each section of the report provides a summary of the identified annual indicators for each environmental area and shows any trend of this reporting period against the mean value of the three previous reporting periods (↑ increase, ↓ decrease, ↔ minimal change). These indicators have been identified to provide for an accurate indication of progress toward Ecologically Sustainable Development over time.

The review and analysis of such information on an annual basis, as part of SoE reporting, helps guide the future strategic direction of Council activities, as well as assist in the identification of future actions to address pressures on Campbelltown's environment.





Our Land



Overview

The Campbelltown LGA is located on the south-western edge of the Sydney metropolitan area, approximately 53 kilometres from Sydney and occupies an area of approximately 312 square kilometres. The LGA extends from Glenfield in the north to Menangle Park in the south. It comprises 33 suburbs and is surrounded by five other LGAs including Liverpool, Camden, Wollondilly, Sutherland and Wollongong. The population predominately lives within a linear urban corridor that follows the alignment of the F5 Motorway/Hume Highway and the Main Southern Railway line. The population of the Campbelltown LGA grew between the 2006 and 2011 census from 143,077 to 147,164 (an increase of almost three percent).

Campbelltown was developed as a satellite city in response to the Sydney Regional Outline Plan of the 1960s and is part of the Macarthur Growth Sector (together with the Camden and Wollondilly LGAs). In 2010, the NSW State Government released the draft South West Subregional Strategy which sets out a vision for the management and development of the south west region incorporating the Campbelltown, Camden, Wollondilly and Liverpool LGAs. The draft strategy identifies the Campbelltown LGA as a major centre with the potential to become a regional centre.

Land use within the Campbelltown LGA is currently characterised by a variety of urban and rural uses. The dominant housing form continued to be low density detached dwellings, with groupings of medium density housing in suburbs and some limited apartments located in the Campbelltown CBD. However, the greatest relative growth between 2006 and 2011 occurred in the construction of apartment blocks.

In accordance with the charter for Local Government under the *Local Government Act 1993*, the principles of Ecologically Sustainable Development require Council to responsibly care for and manage the land resources of the Campbelltown LGA.

Responsible management and care of our land resources is important because they:

- form part of an ecosystem
- provide living space
- provide resources
- are essential for the generation of economic wealth
- are aesthetically pleasing
- provide attractions for tourists
- provide opportunities for recreational and spiritual pursuits.

The key pressures on Campbelltown's land resources include:

- population increases
- greenfield and infill urban development
- natural events such as bushfire and flooding
- invasive species (flora and fauna)
- habitat destruction
- longwall and coal seam gas mining
- illegal dumping.

The following table (Table 1) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Land.

Table 1. Our Land – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Bushfire	Area subject to hazard reduction (ha)	475	592	434	507		↑
	Area burnt by bushfire (ha)	65	75	95	107		↑
	Length of fire trail maintenance (km)	90	10.5	12.0	3		↓
	Number of properties protected	-	1432	2599	2605		↑
	Number of hazard reduction sites	-	82	118	125		↑
	Variation in proportion of landuse classifications	No change	No change	No change	No change	No change	↔
Landuse	Number of approvals for new residential dwellings	245	335	437	489		↑
	Number of approvals for new commercial premises	10	12	18	26		↑
	Number of approvals for industrial premises	40	35	25	22		↓
	Length of new road construction (km)	1.8	1.6	2.0	1.0		↓

Table 1. Our Land – Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Compliance	Number of Part 3A (<i>EP&A Act</i>) applications lodged for the LGA	2	4	2	2	↔↔	
	Number of premises licensed by the EPA to pollute (air and water)	17	17	17	18	↔↔	
	Number of complaints relating to illegal construction and development	236	288	313	244	↓	
	Number of complaints relating to the environment	251	271	290	281	↑	
	Number of complaints relating to trail bikes	88	103	77	71	↓	
	Number of joint trail bike patrols with the NSW Police Force to deter illegal trail bike riding	3	8	3	3	↓	
	Number of penalty notices associated with illegal trail bike activity	97	104	125	40	↓	
	Number of juvenile cautions associated with illegal trail bike activity	4	14	4	6	↓	
	Number of bike seizures associated with illegal trail bike activity	13	4	10	0	↓	
	Number of charges associated with illegal trail bike activity	13	15	14	6	↓	
	Number of tree removal applications	38	38	40	33	↓	
	Number of regulated premises inspected for public health	167	208	212	229	↑	

Table 1. Our Land – Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
	Number of specialist litter patrols		3	3	4		↔
	Number of litter penalty notices issued	53	52	66	27		↓
Public amenity	Length of cycleways constructed (m)	5,0006	00	6309	70		↓
	Length of new walking tracks constructed/ upgraded(m)	02	60	01	00		↑
Contaminated land sites	Number of EPA contaminated land: record of notices	1	1	1	1		↔
	Number of sites within the LGA on the EPA's list of NSW contaminated sites	-	-	10	12		↑
Plans of Management	Number of performance indicators in Plans of Management achieved	67	65	70	75		↑

Major Achievements

The Bulli Seam Longwall Mining Project

BHP Billiton have long held approvals to undertake underground mining operations within the Bulli Seam in the Wollondilly LGA and a small section of the southern portion of the Campbelltown LGA. Approval for an expansion of these operations, over a 30 year period, was issued by a Planning Assessment Commission (under delegated authority from the NSW Minister for Planning and Infrastructure) on 22 December 2011. The expanded area includes the southern portion of the Wedderburn district, however the majority of the Dharawal State Conservation Area (now a National Park) was withdrawn from the application.

Council's submissions to the NSW DP&I and the Planning Assessment Commission, identified a number of deficiencies with the application relating to the assessment of impacts on ground and surface waters within the Hawkesbury-Nepean catchment, and the natural and built environment within the Wedderburn district.

Council expressed its disappointment with the approval to the NSW Minister for Planning and Infrastructure in early 2012. Council also requested that the Independent Expert Scientific Committee, recently established by the Federal Government, investigate the impacts of the approved development on water resources and the adequacy of the approval in protecting these resources.

Bushfire Management



Bushfire management on public lands within the LGA is undertaken by Council in cooperation with the RFS, Fire & Rescue NSW and other government agencies. As a member and active participant of the Macarthur Bush Fire Management Committee, and as a significant landholder/manager, Council plans and undertakes strategic bushfire hazard reduction works across sites within the LGA. This work is particularly important in urban/bushland interface areas at most risk of bushfire such as the suburbs of Kentlyn, Wedderburn, Minto Heights, Macquarie Fields, Long Point, Airs, Ingleburn and St Helens Park. The management of fire breaks, fire trails, roadside vegetation and hazard reduction burning are Council's main treatments for managing this risk.

Significant outcomes within Bushfire Management for the reporting period included:

- Council's first Bushfire Management Plan for a Council reserve, Simmo's Beach Reserve at Macquarie Fields, was completed. The plan provides an overall framework for bushfire management within the reserve.
- The Macarthur Bush Fire Risk Management Plan underwent a review with additional treatments identified for Council, better prioritisation for asset and biodiversity protection and more accurate map displays.
- A community brochure about bushfire hazard reduction entitled 'Hazard Reduction Program - Information for Reserve Neighbours' was developed and made available to residents at Riverfest and via Council's website.
- A meeting of local government officers responsible for bushfire management was hosted by Council focusing on planning, operations, networking and problem-solving of bushfire management issues for local government personnel in NSW.
- Council secured \$33,500 in funding under the Sydney Metropolitan CMA Green Web Program. The funds will be used for environmental restoration works, specifically the closure and revegetation of surplus fire trails within Simmo's Beach Reserve, Macquarie Fields.
- Funding was received from the RFS for hazard reduction and fire trail works within the LGA. This funding was utilised for general maintenance of Asset Protection Zones and roadsides, upgrades to Asset Protections Zones in Ingleburn, Leumeah and Glenfield, fire trail signs and fire trail works within Smiths Creek Reserve.

The Camden Gas Project

The Camden Gas Project involves the extraction of methane gas from coal seams within the Camden, Campbelltown and Wollondilly LGAs by AGL for natural gas supply to the energy market. The NSW Government is the determining authority for such projects, meaning Council's involvement is limited to providing comment on the proposal on behalf of the community and considering requests to access Council land where Council is the land owner.

Stages 1 and 2 of the project (within the southern portion of the LGA) were approved by the NSW Government in July 2002 and September 2008 respectively. In February 2009, AGL (Upstream Investment) lodged an application for Stage 3 of this project, applying to the western and north western sections of the Campbelltown LGA, with the NSW DP&I.

Camden Gas Project Stage 2

As part of Stage 2 of the project, AGL lodged a modification application in October 2011 to allow for the installation of an additional gas extraction well at Mount Taurus, in the vicinity of the Menangle Paceway site. Council objected to this application on a number of grounds including inadequate assessment of potential impacts on groundwaters and the adjoining Nepean River.

Camden Gas Project Stage 3

Council lodged a submission on this application, which was publicly exhibited during October through to December 2010. The status of this application did not progress during the reporting period as AGL continued the compilation of a report responding to the submissions received on the project application. It is anticipated that the report will be publicly released during the next reporting period.

Request for a moratorium on coal seam gas mining

Council believes that the potential impacts of coal seam gas extraction activities on natural resources such as ground and surface waters are not sufficiently understood to allow for a comprehensive assessment of impacts of coal seam gas activities. Council is also aware of the widespread community concern that exists in relation to the potential for these activities to impact on natural resources, the natural environment and land users. Consequently, Council resolved at its meeting on 18 October 2011 to request the NSW Government to:

Impose a moratorium on all further coal seam gas mining until such time as conclusive evidence emerges that this practice does not damage groundwater sources.

The NSW Government advised, in response, that a moratorium was not necessary due to the impending introduction of a specific policy framework as outlined below.

The NSW Parliamentary inquiry into coal seam gas

The NSW Legislative Council held an inquiry into the NSW coal seam gas industry between September and December 2011. Council welcomed the inquiry and provided a detailed submission that expressed dissatisfaction with the way its concerns and objections to certain Part 3A development proposals have been dealt with by the determining authority. Council also participated in a Local Government Panel (along with representatives of adjoining councils) at a Public Hearing held as part of the inquiry in December 2011.

In May 2012, the NSW Legislative Council released Report 35 entitled 'Coal Seam Gas' which contained discussion on 11 key issues and made 35 recommendations for the NSW Government to consider. A report on Report 35 will be forthcoming to Council in the next reporting period.

Major Achievements cont.

NSW Government Policy Development

The NSW State Government publicly exhibited documents associated with its Strategic Regional Land Use Policy, including a draft Stage 1 Aquifer Interference Policy and draft Code of Practice for Coal Seam Gas Exploration during March and April 2012. The stated purpose of these policies is to address conflicts between mining operations and other land use activities (particularly agricultural activity undertaken on prime agricultural land). The following summarises the response by Council to these draft documents:

Draft Aquifer Interference Policy (Stage 1)

The draft policy requires approvals and access licences for aquifer interference activities, such as underground longwall mining and coal seam gas exploration. The draft policy is proposed to only apply to regions with completed Strategic Regional Land Use Plans, that is the Hunter and North West regions of NSW.

Aquifer interference was a key issue raised in Council's submissions on both the Camden Gas and Bulli Seam Projects.

Despite the policy's geographical application, Council provided a submission on the exhibited Stage 1 Policy and requested that the issues raised be taken into account during the preparation of Stage 2 of the document. The issues raised included:

- requirements and guidance for licence applicants regarding the protection of the biodiversity component of the identified Strategic Biophysical Agricultural Land
- protection for impacts on groundwaters and all potentially affected ecosystems as well as impacts associated with the interconnection between ground and surface waters
- details on cumulative impacts in terms of existing similar aquifer interference activities in close proximity and in an overall water catchment context
- that the policy also apply to lands not covered by a plan.

The NSW Office of Water has advised it intends to commence the preparation of Stage 2 of the policy (which will apply to the remainder of NSW), during the 2012-2013 financial year.

Draft Code of Practice for Coal Seam Gas Exploration and Community Consultation Guidelines

Council viewed the preparation of both of these documents as having merit in dealing with issues in relation to property access and consultation by exploration companies with both local government and the community. Key features of Council's submission were the placement of greater emphasis on the rights of property owners and a request that councils be notified as part of the exploration licence process, instead of 28 days after it being issued as originally proposed.

Gazettal of the Dharawal National Park

In March 2012, approximately 6500Ha (98%) of the Dharawal State Conservation Area (SCA) was gazetted as the Dharawal National Park. Around 1.1Ha (17%) of the area is located within the southern part of the Campbelltown LGA.

The gazettal followed extensive lobbying from environmental conservation groups and agencies, including Council, to upgrade the conservation status of the area to a 'national park'. The upgrading affords a higher level of protection to the area's significant biodiversity and cultural heritage values, as mining is no longer permitted within the boundaries of the new National Park. Mining activities are however permitted in the remaining 2% of the SCA located in the south western corner of the Wedderburn district.

The National Park provides for a wide variety of recreation opportunities. The OEH has advised it is currently in the process of preparing a Plan of Management for the Dharawal National Park which may take approximately two years to complete.



Preparation of the Draft Campbelltown (Sustainable City) Development Control Plan 2012

Council is continuing work on a consolidated DCP for the Campbelltown LGA that replaces and updates all existing DCPs into one single document.

Stage 4 of this process was undertaken during the reporting period, and included public exhibition of the Draft Campbelltown (Sustainable City) DCP between May 2011 and June 2011.

The key features of Stage 4 of the Draft Sustainable City DCP include:

- A general review of the existing provisions of the Sustainable City DCP 2009 (Stage 3)
- The inclusion of six new parts addressing the following:
 - Residential Development on Non-Urban Land
 - Public Consultation
 - Religious Establishments
 - Vegetation and Wildlife Management
 - Telecommunication Facilities
 - Sex Industry Premises.

On 8 May 2012 Council considered a report on the Draft Sustainable City DCP, including an assessment of submissions received, and resolved to amend and re-exhibit the document. The amended Plan (Draft Sustainable City DCP 2012) was subsequently exhibited between 23 May 2012 and 25 June 2012.

A further report outlining the outcomes of the 2012 public exhibition period and seeking Council's adoption of the Draft Sustainable City DCP 2012 is being prepared for Council's consideration during the 2012-2013 reporting period.

Major Achievements cont.

Preparation of the Campbelltown Comprehensive Local Environmental Plan (LEP)

An LEP is a legal document that regulates land use and development within a LGA; it requires endorsement by the NSW Minister for Planning and Infrastructure. Council is currently in the process of developing its first Comprehensive LEP and adopting the NSW standard template. The following summarises the activities undertaken as part of Council's preparation of its Comprehensive LEP during the reporting period.

Preparation of the Campbelltown Employment Lands Review Report

The review was finalised and adopted (in part) by Council in June 2011. The review aimed to identify key employment lands for incorporation into the Comprehensive LEP through evaluation of the current demands for employment land in the Campbelltown LGA and identification of employment opportunities.

The Draft Visual and Landscape Analysis of the Scenic Hills and the East Edge Scenic Protection Lands

This Scenic Hills and East Edge Scenic Protection Lands (the Edge Lands) bound the main urban development within the Campbelltown LGA. These areas have been protected from extensive development (other than rural) to date, resulting in high quality visual and ecological environments.



The draft analysis aimed to:

- identify and acknowledge the important visual, aesthetic, landscape and cultural values of the Scenic Hills
- identify areas within the Edge Lands that could be developed, those that could be developed subject to certain restrictions, and those that should not be developed due to visual and landscape reasons.

The draft analysis recommended appropriate zones for inclusion in the Comprehensive LEP that will assist Council and the community in protecting the Scenic Hills and the East Edge Scenic Protection Lands and encourage the sustainable management of these areas. In April 2012, Council resolved to include provisions in the draft Comprehensive LEP that limit rural-residential development on one hectare lots in the Edge Lands, subject to any subdivision meeting strict environmental controls including the retention of existing significant vegetation.

It is envisaged that the draft Comprehensive LEP will be publicly exhibited in 2013. This will provide an opportunity for the community to view and make comment on the draft plan.





Our Biodiversity



Overview

Biodiversity or biological diversity refers to the variety of all life forms on earth. This includes different plants, animals and micro-organisms, the genes they contain and the range of ecosystems that they form within terrestrial, marine and aquatic environments.

Biodiversity underpins the ecological processes that make life on earth possible. It provides fresh food and water, clean air and climate regulation, soils and nutrients, as well as seed dispersal and pollination services.

Biodiversity contributes to the formulation of medicines, fuel, and building materials, as well as assisting in pest and disease regulation. Biodiversity is also a key component of cultural systems as it links with spiritual values, recreation, aesthetics and knowledge.

Campbelltown supports a high level of native biodiversity. Approximately 17,940Ha or 58% of the LGA still contains native vegetation which supports a diverse range of flora and fauna species, including species of conservation significance. This vegetation is made up of 18 vegetation communities, seven of which are listed as threatened ecological communities under the *TSC Act 1995*.

The largest areas of intact vegetation are located in the eastern portion of the LGA within the Holsworthy military area and along the Georges River Corridor. However, other significant remnants and vegetated corridors have been retained throughout the city's urban and rural environments.

Key pressures on Campbelltown's biodiversity include the following:

- clearing and fragmentation of native bushland for development
- weed invasion
- illegal dumping
- plant diseases such as myrtle rust
- climate change impacts
- altered and inappropriate fire regimes
- stormwater runoff
- predation by domestic and exotic animals
- unauthorised vehicle access (such as trail bike riding).

Council strives to maintain the biodiversity values of the LGA and in order to address threats to biodiversity, Council continues to develop and implement a range of strategies, plans and on-ground works in association with the community and other key stakeholders.

The following table (Table 2) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Biodiversity.

Table 2. Our Biodiversity – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Biodiversity protection	Number of Threatened Ecological Communities listed under the TSC Act 1995 as 'Critically Endangered'	-	1	1	1		↔
	Number of Threatened Ecological Communities listed under the TSC Act 1995 as 'Endangered'		7 ¹	7 ¹	8 ²		↑
	Number of Threatened Ecological Communities listed under the TSC Act 1995 as 'Vulnerable'	-	-	1 ¹	1		↔
	Number of Threatened Ecological Communities listed under the Commonwealth EPBC Act 1999 as 'Critically Endangered'		7 ¹	1 ¹	2		↑
	Number of Threatened Ecological Communities listed under the Commonwealth EPBC Act 1999 as 'Endangered'	-	2	2	2		↔
	Number of Threatened Terrestrial Flora listed under the TSC Act 1995 as 'Endangered'	-	11 ¹	11 ¹	11		↔
	Number of Threatened Terrestrial Flora listed under the TSC 1995 as 'Vulnerable'	-	9 ¹	9 ¹	9		↔

Table 2. Our Biodiversity – Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Biodiversity protection	Number of Threatened Terrestrial Flora listed under the <i>EPBC Act 1999</i> as 'Endangered'	-	5 ¹	5 ¹	5		↔
	Number of Threatened Terrestrial Flora listed under the <i>EPBC Act 1999</i> as 'Vulnerable'	-	10	10	10		↔
	Number of Threatened Terrestrial Fauna listed under the <i>TSC Act 1995</i> as 'Critically Endangered'	-	0	1	1		↑
	Number of Threatened Terrestrial Fauna listed under the <i>TSC Act 1995</i> as 'Endangered'	-	7	6	6		↓
	Number of Threatened Terrestrial Fauna listed under the <i>TSC Act 1995</i> as 'Vulnerable'	-	31	31	33		↑
	Number of Threatened Terrestrial Fauna species listed under the <i>EBPC Act 1999</i> as 'Endangered'	-	3	3	3		↔
	Number of Threatened Terrestrial Fauna species listed under the <i>EBPC Act 1999</i> as 'Vulnerable'	-	7	8	9 ³		↑
	Number of Threatened Aquatic Fauna listed under the <i>FM Act 1995</i> as 'Endangered'	-	1	1	1		↔
	Number of Threatened Aquatic Fauna listed under the <i>FM Act 1995</i> as 'Vulnerable'	-	1	1	1		↔
	Number of Aquatic Threatened Fauna species listed under the Commonwealth <i>EPBC Act 1999</i>	-	1	1	1		↔

Table 2. Our Biodiversity – Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Biodiversity protection	Number of illegal clearing events reported to Council	-	1	1	5		↑
	Extent of native vegetation protected by appropriate zoning overlay controls or other conservation agreements (Ha)	-	15,323 ¹	15,383 ¹	15,383		↑
Noxious Pest and Weed Management Plan	Community Service Order bush regeneration hours	5,616	9,360	8,586	1,628		↓
	Number of complaints regarding pest animals and weeds	4	12	48	96		↑
	Number of noxious weed inspections on private property	307	218	63	490		↑
	Number of priority noxious weed inspections	7	6	20	15		↑
	Number of noxious weed inspections on nurseries/aquaria	36	36	3	6		↓
	Number of noxious weed inspections for aquatic environments within the LGA	-	14	39	56		↑
	Number of Weed Advice Program letters issued	31	22	15	25		↑
Number of Proposed Weed Control S18A and Weed Control S18 notices issued under the <i>Noxious Weeds Act 1993</i>	16	19	12	0		↓	

Table 2. Our Biodiversity – Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Bush regeneration	Total area of native bushland in parks, reserves and waterways that received bush regeneration and weed control (Ha)	33.95	0.7	38.6	93.2		↑
	Number of trees planted by Council	13,000	20,500	11,000	40,000		↑

1. During the preparation of Council's Biodiversity Strategy, community and species numbers and native vegetation areas have been investigated and redefined, thus the figures for previous reporting years have been altered where required to reflect the updated number.
2. Coastal Upland Swamps were listed as an EEC during the reporting period.
3. The Koala was listed as Vulnerable under the *EPBC Act 1999* during the reporting period.

Major Achievements

Flora and Fauna Survey, Smiths Creek Reserve

During the reporting period, Council undertook a flora and fauna survey within Smiths Creek Reserve to inform the preparation of a reserve-specific Fire Management Plan. The survey aimed to identify threatened biodiversity which could be impacted on by current and future hazard reduction works.

The survey confirmed the presence of three threatened ecological communities (Cumberland Plain Woodland, Shale/Sandstone Transition Forest and River-flat Eucalypt Forest) and five threatened fauna species (the Cumberland Plain land snail, the Grey-headed Flying-fox and three species of micro bats the Eastern Bentwing-bat, Eastern False Pipstrelle and the Large-footed Myotis). The Koala and Little Lorikeet are also known to occur within the reserve but were not observed during this survey. Following the survey, a series of mitigation measures were developed to help reduce the impact of future hazard reduction works on the reserve's threatened biodiversity. These mitigation measures will be included within the forthcoming Fire Management Plan for Smiths Creek Reserve.



Campbelltown Golf Course Bushcare

In June 2012, a bushcare volunteer group commenced operating at Campbelltown Golf Course under the auspice of the Campbelltown Golf Course USP. The group currently has four members, however many residents have expressed an interest in joining the group and it is anticipated that the group will continue to grow in size in the near future.

The group has assisted in promoting biodiversity on the site and identifying improvements in environmental practices. This group will provide an ongoing positive legacy for the project and contribute to maintaining much of the works undertaken on site.

During June, the group contributed more than 32 hours to works on site including, rubbish removal, plantings and weed management. The group are helping to establish no-mow areas across the site and have planted in the order of 400 plants to date.



Major Achievements cont.

Spring Creek Bushcare

During the reporting period, bushcare volunteers donated 124 hours at Spring Creek, St Helens Park.

Targeted weed species included:

- Large and Small Leaf Privet
- African Olive
- Bridal Creeper
- Asparagus Fern.

Milton Park Bushcare

During the reporting period, bushcare volunteers donated 107 hours at Milton Park, Ingleburn.

Targeted weed species included:

- Large and Small Leaf Privet
- African Olive
- Bridal Creeper
- Asparagus Fern.



Noorumba Bushcare

During the reporting period, bushcare volunteers donated 429 hours at Noorumba Reserve.

Targeted weed species included:

- Broad Leaved Privet – 141 large and medium trees treated/removed and 33kg of small privets removed
- African Olive – 186 Large and medium trees treated/removed and 84kg of small privets removed
- Moth Vine – 15 vines treated/removed
- African Boxthorn – 3 plants treated/removed
- Fireweed – 49kg removed
- Bridal Creeper – 12m² treated.

Tree Swap

In February 2012, Council initiated a trial 'Tree Swap' program, an incentive-based voluntary weed control program. Under the program, residents (and land owners) are encouraged to remove weed trees and receive a replacement native tree from Council.

The benefits of this program include:

- providing habitat for native fauna
- an increase in the native biodiversity and local plant populations
- a reduction in weed species and regeneration of native vegetation
- a possible reduction in resources associated with the existing compliance program
- an increased knowledge within the local community of noxious weed species and their impact.

The weed species eligible for 'swapping' under the program are:

- African Olive, *Olea europaea ssp. cuspidate*
- Privet (Broad-leaf), *Ligustrum lucidum*
- Privet (Narrow-leaf), *Ligustrum sinense*.

Trees are replaced on a one for one basis, with a maximum of 20 replacement trees applicable for each property. Residents are also provided with advice on noxious and environmental weed species and appropriate control measures.

During the trial of the program, the 'swap' was only offered to land owners whose properties were the subject of complaints, land owners were advised of the program along with their weed advice letter. During the reporting period, five applications were processed with 65 native trees provided to residents.

The effectiveness of the program will be reviewed in October 2012.

John Kidd Reserve Rabbit Control Program

The European Rabbit is a declared pest animal under the *NSW Rural Lands Protection Act 1998*. As a land manager, Council has a legal responsibility to control rabbits where they occur on land that is under its care, control and management.

A pest rabbit control program was undertaken at John Kidd Reserve during the reporting period. The ongoing program has targeted the extent of rabbit harbour (areas of dense weed infestation where rabbits can hide and build burrows) within the reserve. This program resulted in significant reductions in the rabbit population.

These works will be followed by an extensive baiting program during the next reporting period aimed at further controlling pest rabbits within John Kidd Reserve.



Major Achievements cont.

Bushland Restoration Program

The area treated under Council's Bushland Restoration Program has increased by almost two and a half times during the reporting period, with restoration works being undertaken within 93.2 hectares of Endangered Ecological Communities (EECs) across 24 reserves. The works were conducted by professional bush regeneration contractors and aim to restore the historic natural values of degraded bushland areas. The program primarily consisted of targeted weed control and revegetation works.

A list of the current bush regeneration sites is provided in Table 3.

Table 3. Current busland restoration programs being undertaken across Campbelltown

Site	Area treated (Ha)	Weed species targeted	Natural assets protected
Georges River Corridor, Kentlyn	1.4	Crofton weed, lantana, senna	Shale/Sandstone Transition Forest
Smiths Creek Reserve, Airds	7.4	African olive, privet, Madeira vine, lantana	Shale/Sandstone Transition Forest
Eagle Farm Reserve, Eagle Vale	1.7	African olive, privet, African boxthorn	Cumberland Plain Woodland
Fisher's Ghost Creek, Bradbury	3.7	Madeira vine, African olive, privet, morning glory	Sydney Coastal River-Flat Forest
Botany Place, Ruse	0.7	African olive, privet, morning glory, African boxthorn	Shale/Sandstone Transition Forest
Milton Park, Macquarie Fields	3.9	African olive, privet, Madeira vine	Cumberland Plain Woodland
Cooks Reserve, Ruse	4.9	African olive, lantana, privet, morning glory, pampas grass	Shale/Sandstone Transition Forest
Noorumba Reserve, Rosemeadow	50.8	African olive, privet, African boxthorn	Cumberland Plain Woodland
Nepean River Reserve, Menangle	1.6	Honey locust tree, privet, balloon vine	Cumberland River-Flat Forest
Ingleburn Reserve, Ingleburn	4.9	African olive, privet, Black-eyed susan	Shale/Sandstone Transition Forest
Simmo's Beach Reserve, Macquarie Fields	1	Lantana, blackberry, pampas grass	Shale/Sandstone Transition Forest
Kennett Park, Macquarie Fields	0.6	African olive, morning glory, privet	Cumberland Plain Woodland
Bunbury Curran Reserve, Macquarie Fields	1.7	African olive, morning glory, privet	Cumberland Plain Woodland
Smiths Creek Reserve lower, Ruse	0.5	Madeira vine	Shale/Sandstone Transition Forest
Appin Road Crown Reserve, Appin	0.5	Madeira vine	Shale/Sandstone Transition Forest
Menangle Reserve, Menangle	7.4	African olive, privet, African boxthorn	Cumberland River-Flat Forest
Redfern Creek, Ingleburn	0.5	Madeira vine, lantana,	Cumberland Plain Woodland
Total	93.2		

Indian Myna Trapping Program

Indian Myna birds have a significant impact on local fauna species as they compete with native birds and other fauna for food and habitat. Council commenced an Indian Myna trapping program in 2008 and this program continued to operate during the reporting period. The program focuses on lending traps to residents to enable them to undertake localised control within their property.

Approximately 150 Myna birds were trapped by local residents during the reporting period.



Revised Environmental Impact Assessment Process for Council Works and Activities

Council has a statutory responsibility under the *EP&A Act* to consider the impacts of its activities on the environment. This responsibility is addressed through the Environmental Impact Assessment (EIA) process.

During the reporting period, Council undertook a review of its EIA process for Part 5 activities (those activities which do not require development consent) and drafted a revised EIA process. When finalised and implemented, this process will provide greater certainty for Council in terms of meeting its legislative requirements, as well as delivering improved environmental outcomes. Council will trial and refine the revised EIA process during the next reporting period.





Our Waste



Overview

Council has three key objectives in managing domestic waste in Campbelltown:

1. minimising the amount of waste generated per household
2. achieving the highest possible ratio of recyclables-to-waste produced per household
3. reducing the impacts associated with illegal dumping.

To assist in achieving these objectives, Council continues to provide residents with a waste and recycling collection system consisting of:

- a 140 litre garbage bin collected weekly
- a 240-litre recycling bin collected fortnightly
- a 240-litre garden organics bin collected fortnightly
- four kerbside clean-ups per year.

Key pressures on Campbelltown's waste include:

- illegal dumping
- increased population
- increased consumption
- increased cost of disposal
- ongoing capacity of and access to landfill.

During the reporting period, Campbelltown residents generated 458kg per capita of domestic waste, which represented a 44kg per capita increase compared to 2010-2011. This was largely the result of a significant increase in the amount of garden organics collected through the year due to increased vegetation growth facilitated by prevailing weather conditions. However, despite the overall increase in domestic waste presented at the kerbside, the 2011-2012 reporting period saw a significant improvement in the amount of materials recovered for re-use or recycling.

Performance data, presented below in Figures 1, 2 and 3, shows that in the reporting period 48,579 tonnes (68.7%) of domestic waste was diverted from landfill compared to 42,356 tonnes (63%) during 2010-2011.

During the reporting period, a total of 2502 reports of illegally dumped waste were received by Council. A total of 652 tonnes of illegally dumped rubbish was collected in the Campbelltown LGA.

The NSW Government has set a target for councils to achieve a minimum of 66% diversion of domestic waste from landfill by 2014. The residents of Campbelltown have already exceeded this target by 2%, two years prior to the target date.

Figure 1. Recycled/re-used to domestic waste ratio for the Campbelltown LGA in the 2010-2011 reporting period.

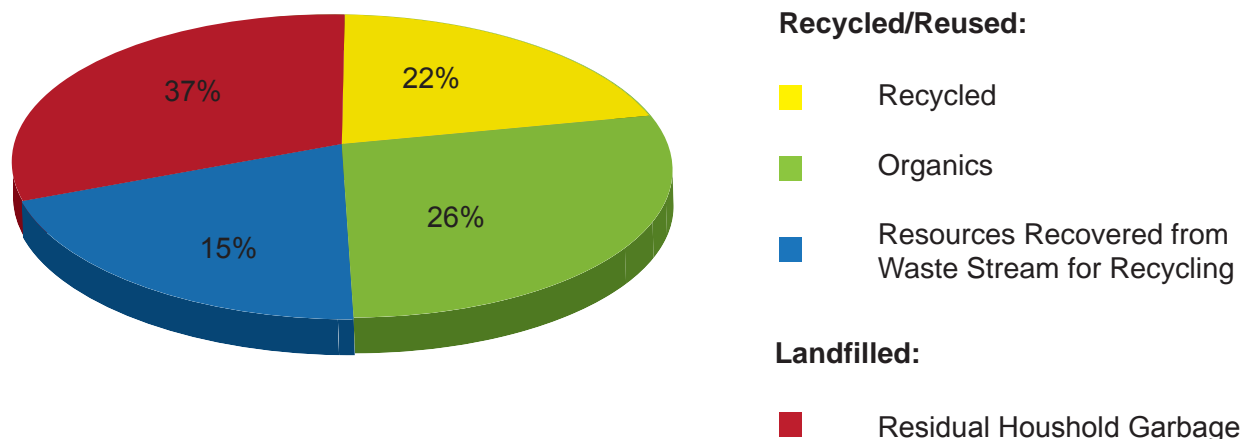


Figure 2. Recycled/re-used to domestic waste ratio for the Campbelltown LGA in the 2011-2012 reporting period.

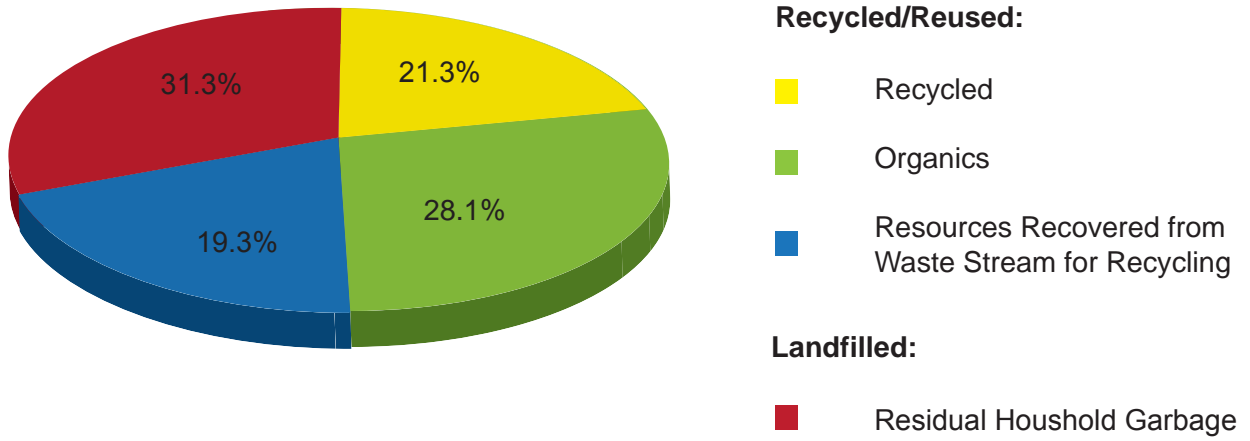
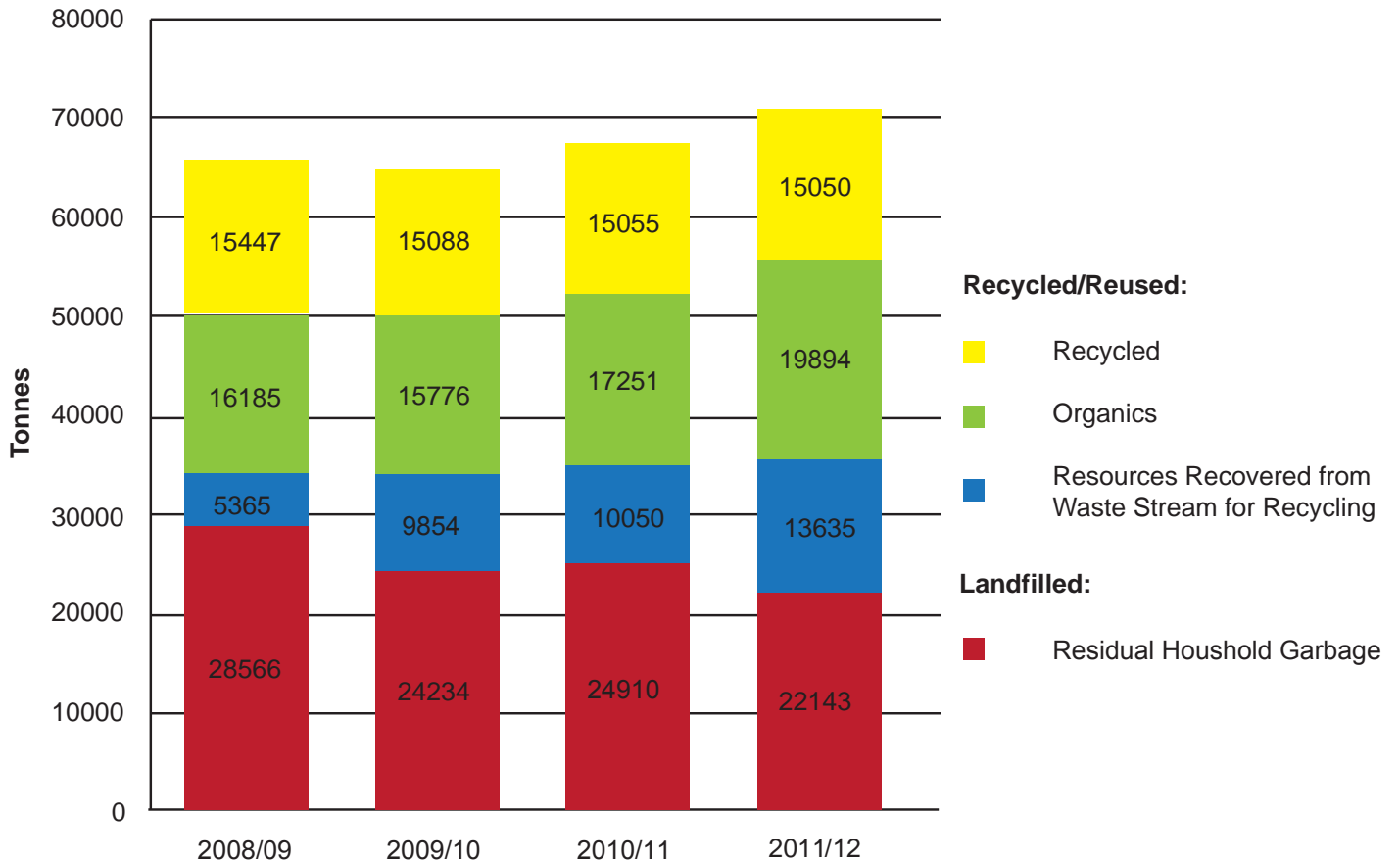


Figure 3. Waste and recycling performance data for 2011-2012 compared to the previous three reporting periods.



The following table (Table 4) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Waste.

Table 4. Our Waste – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Waste	Waste per person per year (kg)	413	407	414	458	↑	
	Number of reports of illegal dumping	2,091	2,150	2,271	2,502	↑	
	Amount of illegally dumped rubbish collected (tonnes)	501	548	550	652	↑	
	Total waste to landfill (tonnes)	23,936	20,008	20,114	22,143	↑	
	Total waste recovered (tonnes)	36,998	40,718	43,291	48,579	↑	
	Resources recovered from waste stream (tonnes)	5,365	9,854	10,050	13,635	↑	
	Number of Council clean-ups	37,793	38,861	33,751	37,730	↑	

Major Achievements

Free Recyclables Drop Off Day

The fourth annual Free Recyclables Drop Off Day was held on Saturday 7 January 2012. Residents were provided with the opportunity to drop off recyclable materials that would normally be disposed of in the domestic yellow-lid recycling bin, particularly over the Christmas period.

Participation at the 2012 event was the highest to date, with 469 vehicles in attendance, more than twice the attendance at the 2011 event. This resulted in a significant increase (over 50%) in the volume of recyclables collected. More than nine tonnes of cardboard, paper, glass bottles, aluminium cans and plastic bottles were dropped off by residents.

In addition to recyclable materials, residents were also able to drop off polystyrene for recycling, which is not able to be disposed of in domestic recycling bins. Residents dropped off approximately 70m³ of polystyrene for recycling on the day, collectively saving approximately 500 general waste bins full of polystyrene from going to landfill. The polystyrene can now be recycled into new products such as timber-look blinds, decking and compact discs.



Light Globe and Fluorescent Tube Recycling Program

Council continues to offer Campbelltown residents a free drop off point for fluorescent tube, compact fluorescent lamp (CFL) and incandescent globe recycling. Residents can safely dispose of these items in the foyer of Council's Civic Centre. Recycling these items ensures resources such as mercury, aluminium, glass and phosphor powder are diverted from landfill, recovered and then reused by various industries.

During the reporting period, Council collected 133 globes (made up of fluorescent tubes, CFLs and incandescent globes).

Mobile Phone Recycling Program

Council continues to provide residents with the opportunity to drop off used and unwanted mobile phones for recycling under the MobileMuster campaign. Residents can drop off their old mobile phones, chargers and accessories at any of Council's five libraries or the Civic Centre.

During the reporting period, Council collected more than 520 mobile phones, chargers and accessories. This equates to approximately 40 kilograms of valuable resources recovered from mobile phones for reuse in new products.



Major Achievements cont.

Chemical CleanOut

The Household Chemical CleanOut event was held on 23-24 July 2011 for residents to drop off unwanted chemicals free of charge for safe disposal and recycling.

The 2011 Chemical CleanOut saw 1023 residents utilise the service, which is the largest participation rate recorded for the event to date in Campbelltown.

A total 35,847kg of chemicals were collected at the event. Chemicals which were dropped off included paint and paint-related products, pesticides and herbicides, solvents and household cleaners, motor oils and fuels, batteries, gas bottles, fire extinguishers, fluorescent tubes, pool and hobby chemicals.



Clean Up Australia Day

Clean Up Australia Day activities were held in March 2012. There were 52 sites registered in the Campbelltown LGA for the event, including 26 school sites, one site for Business Clean Up Day and 25 sites for the main event on Sunday 4 March.

More than eight tonnes of rubbish was collected from parks, bushland and waterways across the Campbelltown LGA in association with Clean Up Australia Day.

Garden Organics and Recycling Contamination Management

The contamination of recycling bins with household waste reduces the amount of materials recovered from recycling and decreases the efficiency of waste processing. The contamination of garden organics bins with other waste decreases the quality of composts created from the garden organics.

In 2010, Council employed a full-time Waste Services Inspection Officer to implement an inspection program to identify garden organics and recycling bins containing contamination and attempt to reduce contamination levels and increase resource recovery rates.

A total of 683 bins were identified as contaminated in the reporting period, a significant reduction when compared to the 2691 bins identified as contaminated during 2010-2011, which highlights the impact of the program. Despite this achievement, contamination of garden organics bins continues to pose a significant challenge.

Kerbside Clean Up Service

Council continues to provide residents with four kerbside clean-ups per year for the removal of bulky waste including furniture, toys and large items of garden organic waste. Clean-ups are provided all year-round on an on-call basis, with residents able to book clean-ups any time of the year. A total of 37,730 clean-ups were booked by residents during the reporting period.

On 13 July 2011, online kerbside clean-up bookings became available on Council's website. Residents can now make an online clean-up booking at any time of the day or night, instead of being restricted to ringing Council during office hours. This reduces delays in the booking process for residents, and provides easier access to the service for those who have difficulty contacting Council during business hours.



Recyc-Olympics

During the reporting period, Council continued to provide the interactive and educational activity, 'Recyc-Olympics' for children.

'Recyc-Olympics' is a relay race where each team is provided with a set of small mobile garbage bins (garbage, recycling and garden organics, each with the appropriately coloured lid), as well as a corresponding set of mock waste items. The race continues until all items have been 'disposed of' in the bins.

At the conclusion of each race, the teams take part in a 'bin inspection' where the contents of their bins are checked, and any items put in the wrong bin are identified. The correct disposal method of each of these items is then explained to the participants.

During the reporting period, 'Recyc-Olympics' was held at Riverfest. The activity continued to be popular and successful in teaching children about the correct use of household bins, the importance of recycling, and the benefits of placing the correct items in organics and recycling bins. The program is now used as a supplement to the sustainability subjects in the school curriculum.





Our Water



Overview

The Campbelltown LGA is located within the catchments of two principal Sydney waterways, the Georges and Nepean River systems. These waterways support a diverse variety of plants and animals, as well as provide for community amenity and recreation opportunities.

The majority of Campbelltown's urban waterways flow into the Upper Georges River, either directly to the Georges River itself, or via the Bow Bowing/Bunbury Curran Creek system. Approximately 86% of the Campbelltown LGA lies within the Georges River catchment. The remaining 14% of the LGA feeds into the Hawkesbury/ Nepean River.

Overall water quality in the LGA remains fair. Water quality results for the reporting period have demonstrated poorer results within the Bow Bowing/Bunbury Curran Creek catchment. Results obtained under the GRCCC River Health Monitoring Program show that water quality within the Georges River is generally good, however detrimental effects due to urbanisation are evident downstream of confluences with urban catchments such as Spring Creek and Bunbury Curran Creek.

Water quality over time has been influenced by rapid urbanisation. Currently, 99% of Campbelltown's population resides within the Georges River catchment. In addition, 100% of the LGA's commercial, industrial areas and business centres are also located within this catchment and more specifically the Bunbury Curran Creek catchment.

The distribution and density of urban areas in close proximity to Campbelltown's major waterways has resulted in increased volumes of stormwater being discharged into these systems. Due to its transmission path, stormwater generally has higher levels of pollutants such as sediment, chemicals, litter, excess nutrients and oils.

Key pressures on Campbelltown's water resources include:

- coal seam gas extraction activities
- urbanisation and associated impervious infrastructure
- pollution spills
- illegal dumping
- litter accumulation
- aquatic noxious weeds
- degraded riparian vegetation
- altered flooding patterns.

The following table (Table 5) provides an account against environmental indicators for the last three reporting periods and any discernable trend, for Our Water.

Table 5. Our Water – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Climate and stream flows	Variation to monthly mean maximum and minimum temperatures (°C)	+0.17	+0.84	-0.5	-0.65		↓
	Yearly rainfall (mm)	727	647	673	951		↑
	Maximum height of the Georges River (m)	1.5	1.4	1.8	2.0		↑
	Minimum height of the Georges River (m)	0.1	0.1	0.1	0.1		↔
	Maximum flow rate of the Georges River (mL/day)	1600	900	1247	11,754		↑
	Minimum flow rate of the Georges River (mL)	0	0	0	4,809		↑
Water quality	Floods (% AEP – annual exceedence probability) ¹	1	1	1	1		↔
	Compliance with water quality objectives in the catchment ²	Fair	Fair	Fair	Fair		↔
	Average Electrical Conductivity (EC) results at water quality monitoring sites (µc/cm)	174-1456	176-1242	152-1563	137-2316		↔
	GRCCC River Health Monitoring Report Card rating for Upper Georges catchment	Not sampled	B	B	B+		↑

Table 5. Our Water - Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Aquatic weeds	Number of Alligator Weed infestations	85	81	81	50		↓
	Percentage reduction of Alligator Weed infestation coverage	30-70	5	5	80		↑
	Number of Ludwigia infestations	97	85	85	31		↓
	Percentage reduction of Ludwigia infestation coverage	30-70	5	5	65		↑
Point sources of water pollution	Number of licensed discharge points to water	5	5	5	5		↔
	Number of sewage outfall events	-	3	7	- ³		
	Total discharge of outfall events (mL)	-	101.1	122.4	- ³		
	Number of sewage overflow incidences	-	17	22	14		↓
	Volume of sewage overflow incidences (kL)	-	249.4	229.8	- ³		
	Number of septic systems within the Campbelltown LGA	>900	>900	>900	1232		↑
	Number of septic systems inspected for compliance	-	105	110	190		↑
	Percentage of septic systems that complied on initial inspection	85	67	63	82		↑

Table 5. Our Water - Reporting on indicators cont.

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Water quality improvement devices	Percentage of septic systems that continued to fail after notice was given	-	44	3	2		↓
	Number of water quality improvement devices installed in Council's drainage system	0	20	2	2		↓
	Volume of pollutants collected from GPTs (m ³)	593	350	473	510		↑
Compliance	Number of compliance actions for water issues	31	37	40	33		↓
	Number of water quality complaints received by the OEH	7	16	14	14		↑
Water extraction	Number of surface water licences	30	30	30	36		↑
	Number of licensed groundwater bores	26	33	37	46		↑

1. The probability of a particular rainfall amount for a specified duration being equalled or exceeded in any one year.
2. As per Council's water quality monitoring strategy.
3. Information unavailable at the time of report preparation.

Water Quality Monitoring Program

Council continues to undertake water quality testing at a number of strategically selected sites within the LGA.

A review of Council's WQMP was undertaken in 2011 to determine compliance with the relevant changes to national and state water quality monitoring and management guidelines. Following recommendations from the review, Council updated its Water Quality Monitoring Strategy to guide the future of the WQMP with the following objectives:

- undertake long term monitoring of the waterways within the LGA to assess trends in water quality over time from a point and non-point pollution sources and understand the causes and effects of elevated nutrient and microbial levels.
- compare water quality results between sites across the LGA, including urban and non-urban landscapes.
- monitor microbial levels at popular recreational sites.
- provide direction and assist in the development of stormwater management programs.

In accordance with the revised Water Quality Monitoring Strategy, the current WQMP includes the sampling and monitoring of 13 strategically selected sites within the Georges River and the Nepean River catchments against National Guidelines for Fresh and Marine Water Quality, developed by the Australian and New Zealand Environment and Conservation Council (ANZECC 2000). Figure 4 shows the percentage compliance with the ANZECC guidelines at each of Council's water quality monitoring sites. Table 6 shows the percentage compliance with the ANZECC water quality trigger values for each parameter at each of monitoring sites.

Under the updated strategy, three sites are now also compared to the National Health and Medical Research Council Guidelines, Managing Risks in Recreational Areas (NHMRC 2008). The NHMRC guidelines are considered the most industry relevant for assessing human health risks within recreational water bodies.

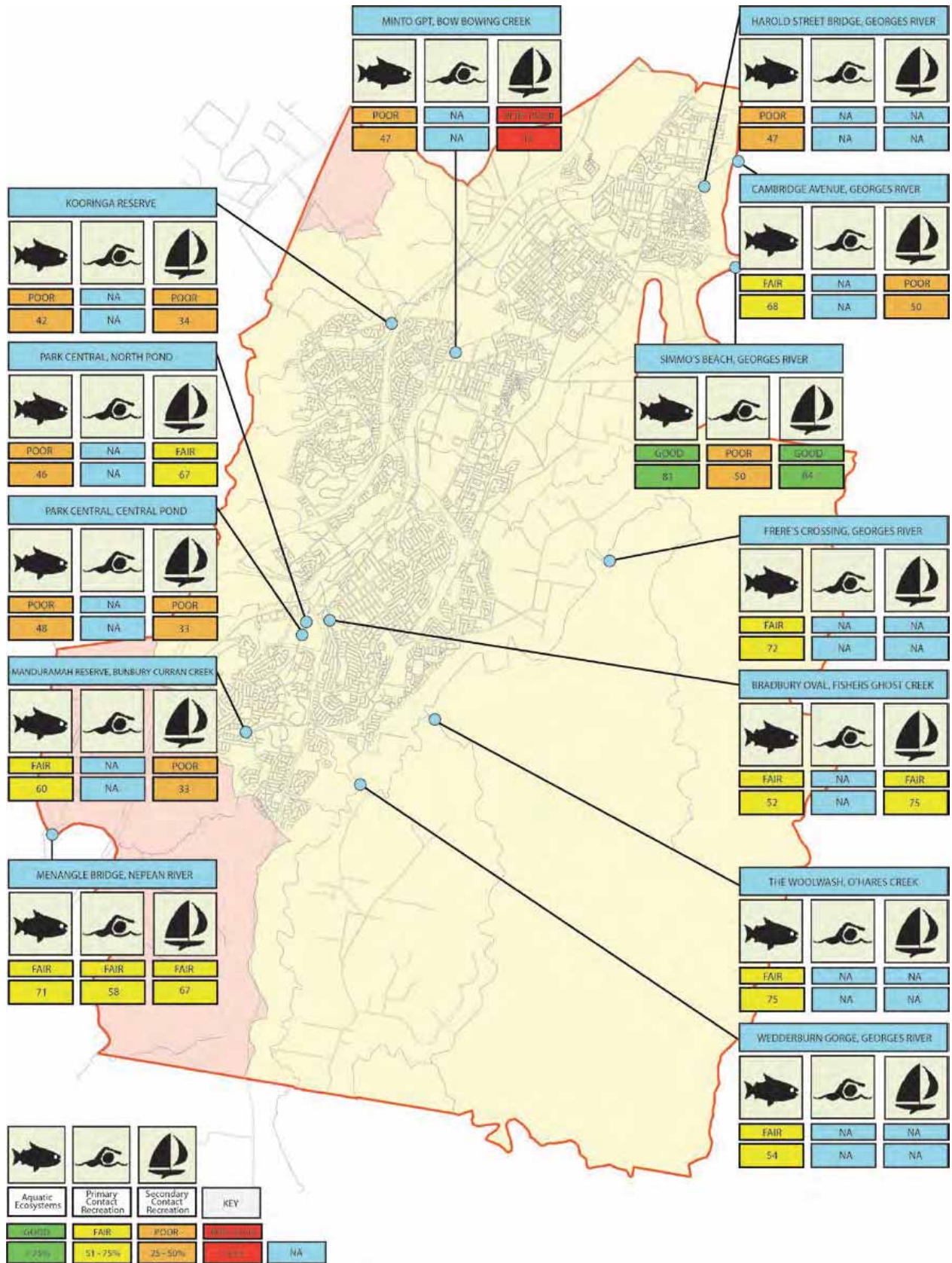
Council is aware of two sites accessed for recreational water use, located at Simmo's Beach and Menangle Bridge. Under the revised strategy, these sites are monitored and assessed against the NHMRC guidelines. An additional site at the Woolwash is also monitored as a control site. Table 7 shows the classification of each recreational area in accordance with the NHMRC guidelines. Data collected at the recreational sites will continue to be analysed against the ANZECC recreation contact guidelines for historical trend analysis.

The results from the GRCCC River Health Monitoring Program since spring 2009 are provided in Table 8. Further information about the River Health Monitoring Program is contained in the section on the GRCCC.

The results from both Council and the GRCCC's water quality monitoring programs demonstrate poor water quality within the highly urbanised Bow Bowing Bunbury Curran Creek catchment and a decrease in water quality downstream of urban tributaries such as Spring Creek. Analysis of water quality against the NHMRC guidelines at Simmo's Beach has also shown the water quality to be poor for recreational purposes.

A targeted management response project is currently being undertaken along the Georges River to identify possible pollution sources and non-compliant land use practices that may have a negative impact on water quality in the Georges River. This has included issuing clean up notices to property owners and companies identified to be contributing to pollutant levels. Council has also received funds from the Sydney Metropolitan CMA for a project to install a naturalised water quality improvement device along the Spring Creek catchment.

Figure 4. Percentage compliance with ANZECC guidelines for water quality at Council's water quality monitoring sites.



* Please note that although each site is analysed against primary and secondary contact criteria, only two sites are recognised as providing for primary contact recreational activities - Menangle Bridge and Simmo's Beach. In the case of other locations, analysis is conducted for benchmarking purposes only.

Table 6. Percentage compliance with ANZECC water quality trigger values for aquatic ecosystems, primary contact recreation and secondary contact recreation criteria for sites tested under the WQMP for the Campbelltown LGA

	Bushland and rural landuses					Urbanised landuse									
	The Woolwash, O'Hares Creek	Menangle Bridge, Nepean River	Wedderburn Gorge, Georges River	Freer's Crossing, Georges River	Simmo's Beach, Georges River	Harold Street Bridge, Bunbury Curran Creek	Koorunga Reserve, Bunbury Curran Creek	Minto before GPT, Bow Bowling Creek	Park Central, South Park Central, South Creek	Park Central, Central Creek	Mandurama Reserve, Bunbury Curran Creek	Burrendah Dam, Bunbury Curran Creek	Bradbury Oval, Fisher's Ghost Creek	Cambridge Avenue, Bunbury Curran Creek	
Aquatic ecosystems	Dissolved oxygen	78	77	80	91	92	18	36	45	20	60	50	33	20	50
	pH	100	100	73	91	92	82	91	45	91	91	91	67	91	100
	Electrical conductivity	60	96	91	82	92	91	64	100	82	91	100	100	91	100
	Turbidity	50	48	27	27	38	55	45	55	45	18	73	17	55	50
	Total nitrogen	73	33	0	58	82	0	0	8	0	0	8	0	0	0
Total phosphorus	73	67	58	75	82	8	0	25	33	17	58	0	33	75	
Primary contact	Chlorophyll A	91	75	75	83	91	75	50	50	58	42	43	75	100	
	Faecal coliform	n/a	83	n/a	n/a	83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Enterococci	n/a	33	n/a	n/a	17	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Secondary contact	Faecal coliform	n/a	100	n/a	n/a	100	n/a	67	33	100	33	100	100	100	
	Enterococci	n/a	33	n/a	n/a	67	n/a	0	0	33	33	100	50	0	

Key	Good	Fair	Poor	Very poor
	>75%	51-75%	25-50%	<25%

ANZECC Guideline Trigger Values used are values for South-east Australia- Lowland – Eastern Flowing Coastal Rivers (Source ANZECC, 2000).
 Dissolved Oxygen 85-110 (% saturation) ; Electrical Conductivity 125 -2200 (us/cm) ; Turbidity 6-50 (NTU) ; Total N 350 (ug/L) ; Total P 25 (ug/L); Chlorophyll A 5 (ug/L)
 Faecal coliform Primary Contact: The medium of a minimum of 5 samples should not exceed 150 organisms/100mL
 Faecal coliform Secondary Contact: The medium of a minimum of 5 samples should not exceed 1000 organisms/100mL, with 4 out of 5 samples less than 4000/100mL
 Enterococci Primary Contact: The medium of a minimum of 5 samples should not exceed 35 enterococci/ 100mL. Maximum number in any one sample 60 – 100 / 100mL
 Enterococci Secondary Contact: The medium of a minimum of 5 samples should not exceed 230 enterococci/100mL. Maximum number in any one sample 450 – 700 /100mL

Table 7. Classification of Recreational Water Environments (NHMRC 2008)

Site	Category
Simmo's Beach, Georges River	Very Poor
Menangle Bridge, Nepean River	Poor
Woolwash, O'Hares Creek	Good

Table 8. River Health Monitoring Program report card grades for sites monitored within the Campbelltown LGA

Site	Spring 2009 Grade	Autumn 2010 Grade	Spring 2010 Grade	Autumn 2011 Grade
Stokes Creek	A	A+	A+	A
Woolwash, O'Hare's Creek	A	A-	A	A
Woolwash, Georges River	B+	B	B	B
Ingleburn Weir, Georges River	A+	A+	A+	A+
Simmo's Beach, Georges River	B-	B	B	B+
Cambridge Ave, Georges River	C+	B-	B	B

Major Achievements

Campbelltown Golf Course Urban Sustainability Project

In 2009, Council received \$250,000 funding from the NSW Environmental Trust for a USP focusing on the headwaters of the Bow Bowling Creek within the Campbelltown Golf Course. The project, which aimed to improve water quality within the catchment and engage with key stakeholders and the local community, is due for completion in August 2012.



On-ground Works

During the reporting period, the project focused on the implementation of the Waterway Management Plan through on-ground works. This involved:

- noxious and environmental weed control
- wetland plantings
- terrestrial and riparian plantings
- drainage and stormwater treatment improvements
- aquatic weed control in waterways.

In an effort to restore some of the original system and its benefits, rocky pools, runs and cascades have been installed along the drainage lines through the course using large sandstone boulders in-filled with smaller rocks. These rocks provide a more natural appearance, as well as increasing the diversity of flow and roughness through these areas which were prone to algal blooms. The rocks and respective pools will help to increase dissolved oxygen levels throughout the water column, slow the water down and facilitate sediment flocculation.

Sediment was removed from strategically selected areas to reduce nutrient levels and to increase the carrying capacity of some pools. This greater carrying capacity will provide far greater stability in water quality throughout the year.

Monthly water quality sampling has been undertaken since December 2011. The results demonstrate there has been a small decrease in total nitrogen and total phosphorus levels observed at the Campbelltown Golf Course since sampling commenced.

No-mow zones have been established along both riparian zones and in terrestrial areas in an effort to boost the capacity for vegetated areas to filter nutrients and pollutants from fairways and greens and increase resilience, particularly in the areas containing remnant native vegetation communities. These zones will rebuild vegetation community structures and enhance biodiversity across the site.

Community Engagement

Drain stencilling as part of the education program was undertaken across the Glen Alpine area with around 150 drain lids stencilled in high traffic areas in May 2012. The stencils aim to recognise the connection between the stormwater system and the Georges River system and discourage negative behaviours such as irresponsible disposal of litter and lawn clippings.

In June 2012, a Bushcare volunteer group commenced operating at the site. The group has assisted in promoting biodiversity on site and identifying improvements in environmental practices. The group currently has four members, however many residents have expressed an interest in joining the group and it is anticipated that the group will continue to grow in size in the near future.

Upper Georges River Urban Sustainability Project

In 2008, Council in partnership with Liverpool City Council and in association with Wollondilly Shire Council, received \$2 million from the NSW Environmental Trust for a USP focusing on the Upper Georges River. The Upper Georges River USP entered its final phases during the reporting period. The project is due for completion in July 2012.

The following provides an overview of the highlights during the period.

Water Sensitive Urban Design (WSUD) Rapid Assessment Workshop

Campbelltown in association with Liverpool and Wollondilly Councils undertook a WSUD Rapid Assessment Workshop aimed at understanding each organisation's capacity to implement WSUD within the local area. Each council is now responsible for developing individual action plans for their LGA. The action plans are envisaged to facilitate the undertaking of WSUD-based projects in the near future to address areas of concern, relating to nutrient and sediment sources, across the LGA.

Kennett Park, Ingleburn Reserve and Simmo's Beach Weed Removal Project

This project targeted four sites along the Georges River and its tributaries that have been identified as point sources of weed seed dispersal within the catchment. Two of the sites (Ingleburn Reserve and Simmo's Beach) are adjacent to the Georges River. The other two sites (Kennett Park A and B) form part of an important east/west riparian corridor extending along Bunbury Curran Creek to the Georges River.

This project targeted areas that are representative of Cumberland Plain Woodland and Sydney Coastal River-flat Forest communities both of which are listed as Endangered Ecological Communities. Specifically the project has involved the removal of weeds across 3.5 hectares of Council owned land and the planting of 1200 plants in areas that have been identified as unable to regenerate naturally.

Waterwise Garden

The Marsden Park Waterwise Garden was designed to educate the community on types of gardens and plants that require reduced water maintenance and that could enhance local biodiversity within the LGA. It is located in a highly urbanised neighbourhood within the Campbelltown Regional Centre.

The garden was primarily designed by a student from the University of NSW (as part of a university course project), consultation and design review was then undertaken with council staff and members of the Project Steering Committee. The garden has been constructed around a central path linking four smaller garden types. Educational signage was included to explain the concepts to visitors and residents, with learning space also been incorporated to allow for larger groups (such as schools) to visit and learn about the ideas presented.



This project is jointly funded by the Upper Georges River USP and Campbelltown City Council.

Woolwash

Previously Council has undertaken works to minimise the exportation of sediment to the Georges River via the fire trail at the Woolwash. Recent inspections noted that while the initial works had been relatively successful, the presence of an ephemeral stream was continuing to cause erosion of the fire trail.

In response, Council has designed and constructed a rock-lined drain swale to manage the path of the water as it moves down through the site. The swale will also act to restrict and retard the velocities at which the water travels, minimising the risk of further erosion and scarring during rainfall/storm events.



Major Achievements cont.

Upper Georges River Urban Sustainability Project cont.

The C3West Project

The Upper Georges River C3West Project is an extension of the highly successful River Project staged at the Campbelltown Arts Centre in 2010.

The Museum of Contemporary Art has been engaged by project partners, C3West and the Upper Georges River USP, to deliver an art and community engagement project. The project will focus on raising the community's understanding of the consequences for the river of activities such as illegal dumping, arson and littering, as well as creating a local culture of stewardship of the river in the Airds/Bradbury communities.

During the reporting period, artist Michel Tuffery was selected to deliver the project, which will take place during the next reporting period.

Georges River Combined Councils Committee

The GRCCC represents local councils in the Georges River catchment of NSW. Members include nine local councils: Rockdale City, Sutherland Shire, Kogarah City, Hurstville City, Bankstown City, Liverpool City, Fairfield City, Campbelltown City and Wollondilly Shire Councils. It is an incorporated association of local councils working in partnership with State and Federal Government agencies and community representatives within the Georges River catchment.

Formed in 1979, the GRCCC's mission is to advocate for the protection, conservation and enhancement of the health of the Georges River, by developing programs and partnerships and by lobbying government organisations and other stakeholders.

Council is an active member of the GRCCC and works in association with the committee on a range of projects including the Upper Georges River USP. Other projects of note are outlined below:

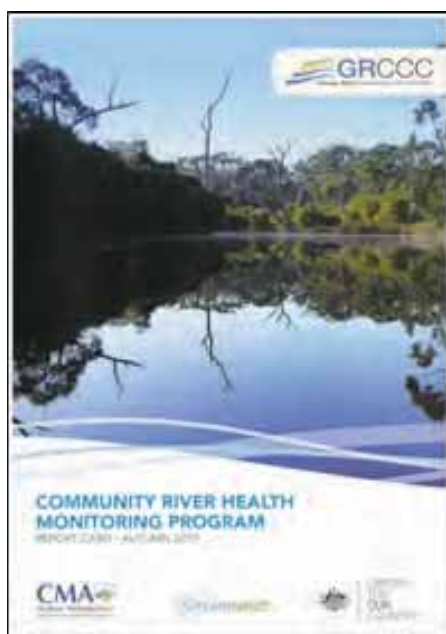
Community River Health Monitoring Program

The program, which is currently funded by the Federal Government's Caring for Country Program, involves the monitoring of macroinvertebrates, water quality and riparian vegetation at 42 selected sites along the Georges River catchment. The data collected is being used to produce a series of program 'report cards' which provide a snapshot of the health of the Georges River.

Four report cards have been produced so far - Spring 2009, Autumn 2010, Spring 2010 and Autumn 2011.

The program has now moved to the production of annual report cards to provide a long term overview of the health of the catchment and greater integrity in data evaluation. The Spring 2011/Autumn 2012 card is currently being prepared and is due to be released in October 2012. The results

from the report cards since the program's inception are provided in Table 8.



The Riverkeeper Program

The Riverkeeper Program was established by the GRCCC and NSW Maritime in 1999 with the aim of improving the health and amenity of the Georges River. The program undertakes rubbish removal, bushland regeneration, control and management of terrestrial and aquatic weeds and monitoring of the Georges River for illegal activities and river health.

The program operates with teams of volunteers sourced from organisations such as the National Parks Association and National Green Job Corps Program. Primarily the GRCCC partners with Corrective Services NSW using work teams comprised of individuals subject to Intensive Correction Orders.

Since 2010, there has been a dramatic increase in the output of the program due to an MoU negotiated with Corrective Services NSW and the GRCCC. Currently the program services 14 sites across Campbelltown:

- Bow Bowing Creek, Airds Road, Leumeah
- Bow Bowing Creek GPT, Minto
- Kyngmount Reserve, Minto
- Tree Gully Reserve, Blair Athol
- Mount Erin Road, Blair Athol
- Park Central, Campbelltown
- Pembroke Park, Minto
- St Helens Park GPT
- Fisher's Ghost Creek, Bradbury
- St Andrews Park, St Andrews
- Rose Park, Minto
- Mansfield Creek GPT, St Helens Park
- Lower Mansfield Creek, St Helens Park*
- Cleopatra Reserve, Ambarvale*.

* New sites in 2011-2012

The Riverkeeper inaugural report card was released in 2011, making the program more accountable, as well as educating stakeholders about the work being performed.

During the reporting period, the program collected 110 tonnes of rubbish across the catchment including 18.9 tonnes in Campbelltown. The program also treated 1898m² of land for bush regeneration in Campbelltown. In total during the reporting period, the program provided 30,200 volunteer hours, 3781 of which were spent in Campbelltown.

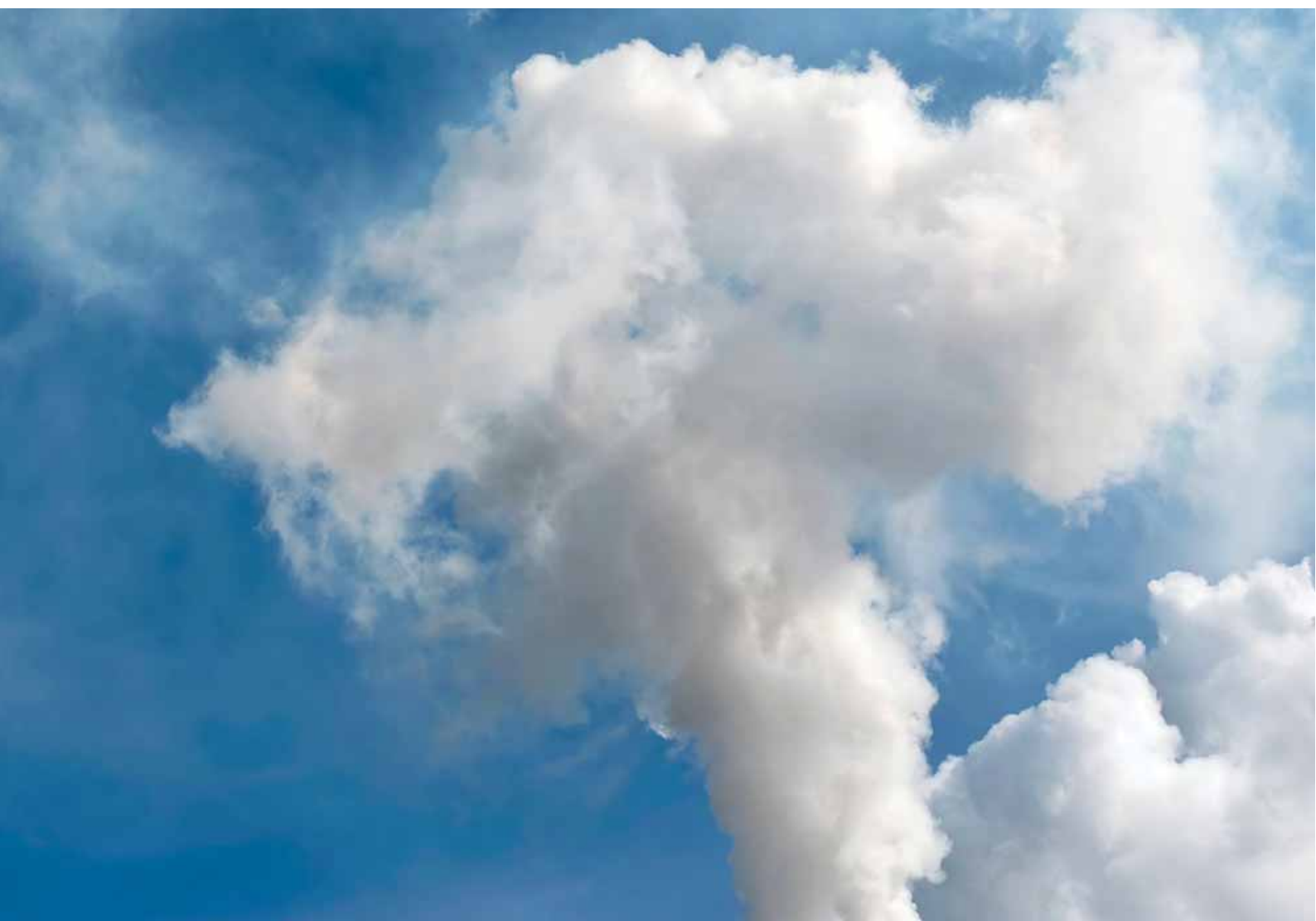
Recognition of GRCCC and its programs

During the reporting period, the GRCCC and its programs have been well recognised through the nomination and receipt of various awards:

- The GRCCC was nominated as a finalist in two categories of the NSW Green Globe Sustainability Awards in 2011 for Local Government Sustainability and Public Sector Sustainability.
- The River Health Monitoring Program was awarded the top prize in the Urban Landcare category of the biennial NSW Landcare Awards in 2011.
- The Riverkeeper Program was awarded Keep Australia Beautiful NSW Clean Beaches 2011 awards for:
 - State and Regional Litter and Waste Management
 - State and Regional Environmental Protection
 - Regional Community Partnerships and Action.
- The River Health Monitoring Program is currently nominated for a National Urban Landcare award, which will be announced in the first week of September 2012.
- The GRCCC is a current finalist in the 2012 International RiverFoundation's Australian Riverprize (an Australian Federal Government award). The winner will be announced in October 2012.



Our Air



Overview

According to the DECCW survey 'Who Cares about the Environment in 2009?' NSW residents identified air quality to be the third most important environmental issue in NSW (following water management and climate change and equal with energy/fuel). Although current indications identify that air quality in NSW is generally good, two main problems persist within the Greater Metropolitan Region (consisting of Sydney, Lower Hunter and Illawarra regions), which is home to around 70% of the NSW population. These problems are photochemical smog (ground level ozone) and particle pollution (brown haze).

Council understands that clean air is fundamental to the health of its community and the natural environment and plays an important role in the management of air quality within the LGA. Council maintains a register of air pollution complaints raised by residents, which are actively inspected by compliance officers. Air quality concerns predominately include excessive smoke from domestic wood heaters and motor vehicles, unauthorised burning of waste, unacceptable odours and dust.

Residents who are the subject of complaints are generally provided with advice and education. However, where air pollution continues, Council has a variety of enforcement options available to ensure that all sectors of the community comply with acceptable air quality standards. These standards are detailed in the *Protection of the Environment Operations (Clean Air) Regulation 2010*.

Key pressures on Campbelltown's air quality include:

- pollutants from motor vehicles
- smoke from bushfires
- smoke from domestic woodfires
- emissions from industry
- emissions from the unauthorised burning of waste.

The following table (Table 9) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Air.

Table 9. Our Air – Reporting on indicators

Category	Indicator	Reporting year				4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012	
Air quality	Macarthur Air Quality Index – monthly average	Good	Good	Good	Good	↔↔
	Sydney South West Regional Air Quality Index – monthly average	Good	Fair	Good	Fair	↓
	Number of air quality complaints received by Council	60	55	74	54	↓
	Number of air quality complaints received by the OEH	61	9	20	18	↓
	Number of facilities with current pollution licences	10	10	13	1	

¹ Information unavailable at the time of report preparation.

Regional and Local Air Quality Index

The OEH measures and records ambient levels of air pollutants across Sydney, Illawarra, the Lower Hunter and selected rural sites around NSW twice a day. Monitoring stations located in the Sydney South West Region include Macarthur, Bringelly, Liverpool, Bargo and Oakdale. The information provided by these stations assists to identify the nature and severity of air pollution within the Campbelltown LGA.

Since 2008, pollutant data is recorded and represented as the Regional Air Quality Index (RAQI). The RAQI is based on the five criteria pollutants (ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide and air particles) plus visibility (as per a standard set by the NSW Government).

The RAQI values are categorised as follows:

- very good, 0-33
- good, 34-66
- fair, 67-99
- poor, 100-149
- very poor, 150-199
- hazardous >200.

Figures 5 and 6 provide graphical representations of the Macarthur RAQI monthly average compared against the Sydney South West Air Quality Index (AQI) monthly average for this reporting period and 2010 - 2011. The data shows that the RAQI has declined between the two reporting periods.

Major Achievements

Public availability of air quality monitoring data

Council has concerns over emissions from industrial premises and associated impacts on air quality and public health within the Campbelltown LGA and the broader Macarthur region. In this regard, Council resolved at its meeting in February 2010 to write to the NSW Minister for Planning and Infrastructure requesting that emission monitoring data collected by these premises under EPA licence conditions be made publicly available, in the interest of promoting greater community awareness of the environmental performance of those industries with potential to significantly impact on the environment.

Council subsequently held meetings with the EPA in August 2011 in relation to this matter, particularly focussing on emissions from CSR Viridian (Pilkingtons) premises at Ingleburn, due to this premises receiving a high level of community concern.

Subsequent to this meeting, in March 2012, the NSW Government introduced amendments to the *Protection of the Environment Operations Act 1998* that required premises licenced by the EPA to place emission monitoring data on their website. Council received notification in June 2012 that CSR Viridian had placed emission monitoring data from their premises on their website.

Figure 5. 2010-2011 Macarthur RAQI monthly average compared against the Sydney South West AQI monthly average

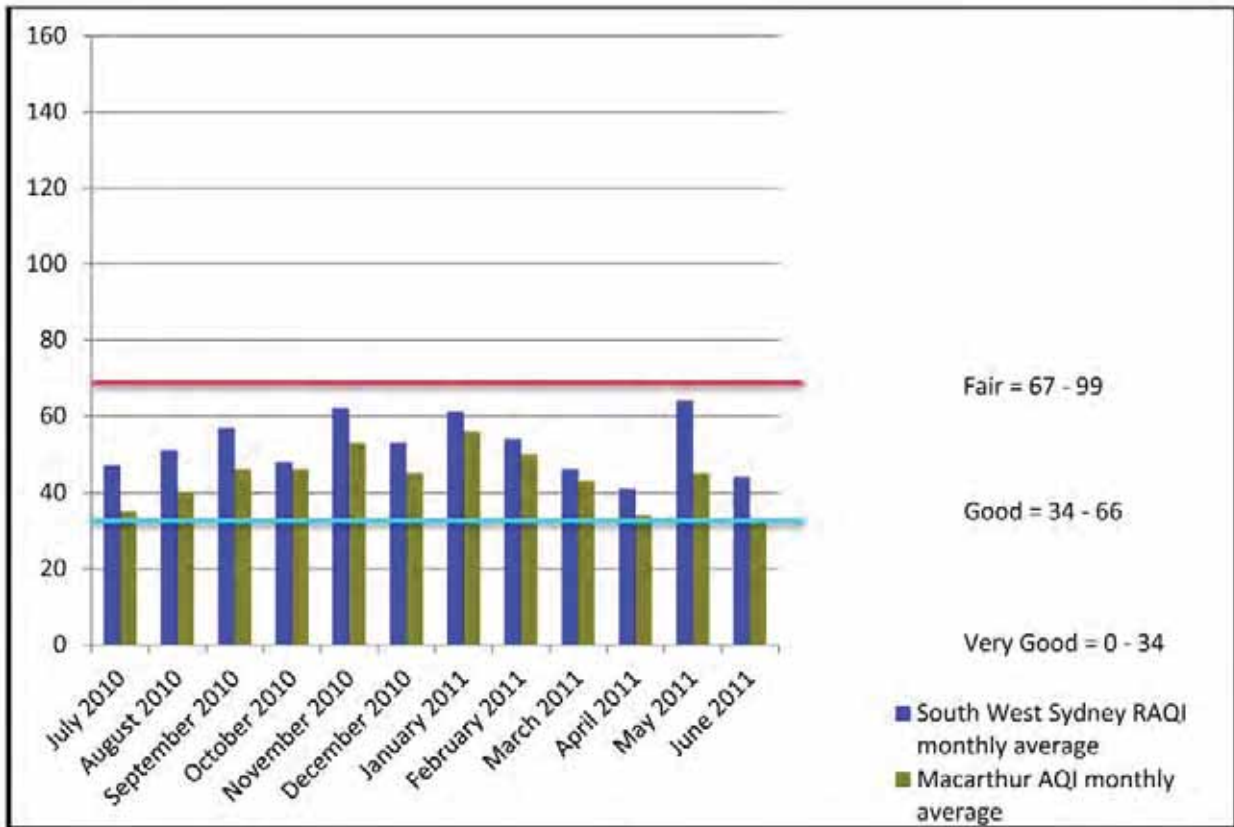
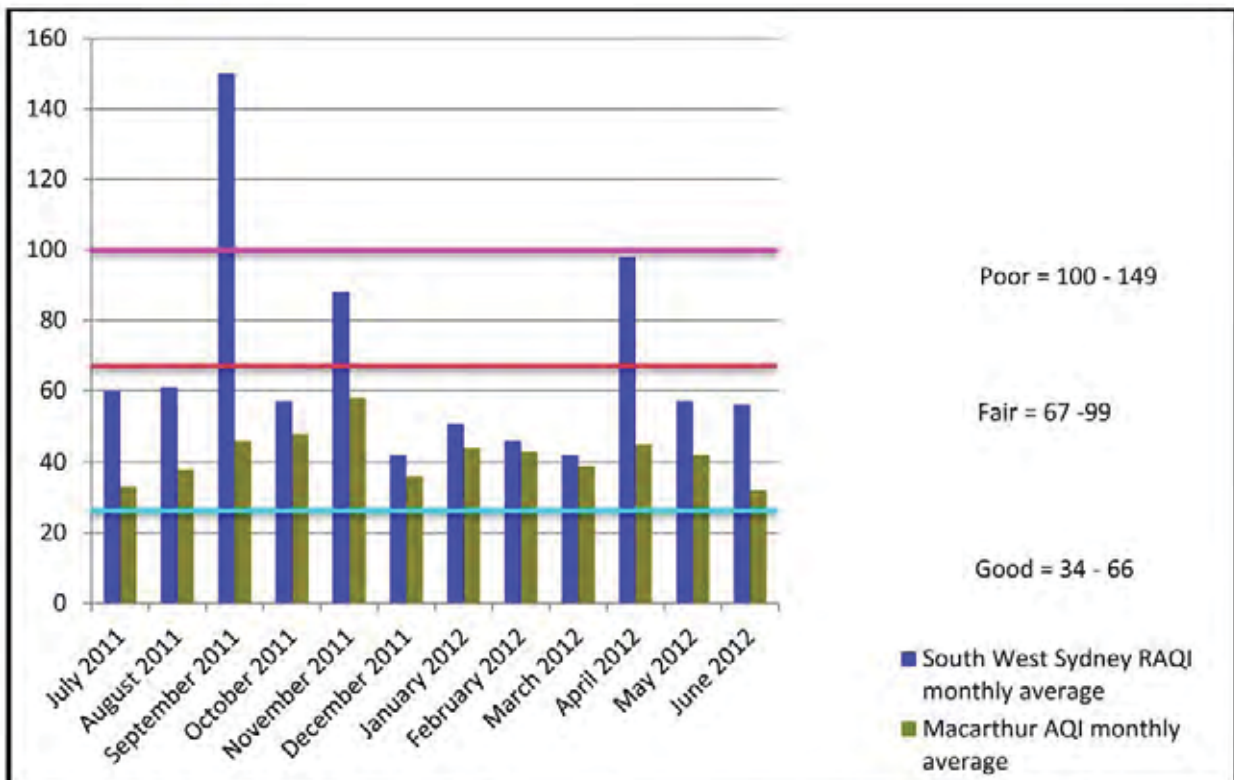


Figure 6. 2011-2012 Macarthur RAQI monthly average compared against the Sydney South West AQI monthly average





Our Sustainability



Overview

The concept of sustainability was first introduced in 1987 in a report entitled 'Our Common Future' (Brundtland Commission Report). Prepared under the direction of the United Nations by the World Commission on Environment and Development, the report sought to create a future which equally balanced economic, social and environmental needs. With the addition of governance. This is now known as a Quadruple Bottom Line approach.

With this in mind, sustainable development was defined as:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Subsequent to the Brundtland Commission report, the Council of Australian Governments endorsed the National Strategy for Ecologically Sustainable Development in 1992. The strategy further defined Ecologically Sustainable Development (ESD) as:

"Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased".

Council has an important role to play in the implementation and achievement of sustainable practices. Under the *Local Government Act 1993* Council's charter includes a commitment:

To Properly manage, develop, protect, restore, enhance and conserve the environment of the area for which is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development.

Council recognises that sustainability is inherently linked to sound decision making and management and as a result, is actively seeking a quadruple bottom line approach when undertaking its business. Council understands that the community of Campbelltown has a strong interest in achieving sustainable practices. In accordance with the Campbelltown 2025 Vision, the City of Campbelltown looks forward to a sustainable future where:

"The scenic hills, rural landscape settings, the bush land, the rivers and the unique environment are protected".

"Scarce natural resources including water, soil and air are appropriately valued and used wisely in the interests of future generations".

In pursuing the incorporation of sustainability, Council aims to minimise the consumption of energy and other finite resources, conserve environmental assets and reduce greenhouse gas emissions, both on Council owned property and on community assets throughout Campbelltown.

Key pressures on Campbelltown's sustainability include:

- increased resource consumption
- improved standard of living
- lack of understanding of lifestyle impacts
- commercial growth
- population increases
- urban development.



The following table (Table 9) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Sustainability.

Table 9. Our Sustainability – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Organisational sustainability	Paper consumption (reams)	-	6973	5907	6173	↓	
	Cost of paper consumption (\$)	-	37,646	30,467	32,468	↓	
	Electricity consumption (kWh)	14,802,096	15,411,772	15,345,783	12,273,006	↓	
	Green energy purchased (kWh)	-	1,527,252	179,786 ¹	140,293 ¹	↓	
	Gas consumption (MJ)	-	21,626,954	20,396,422	17,317,312 ²		
	Passenger fleet – petrol consumption (L)	-	541,074 ³	258,671 ³	245,951		
	Passenger fleet – diesel consumption (L)	-	52,423 ²	63,268 ²	81,845		
Water consumption	-	267,833	204,995	189,283	↓		

1. Council discontinued the purchase of Green Energy at its larger facilities during the 2010 - 2011 financial year. Council currently only purchases Green Energy at its small facilities.

2. Not all data for Campbelltown Old Town Hall is available

3. Data for February 2010 and July 2010 is unavailable.

Major Achievements

Sustainable Initiatives

During the reporting period, Council continued to reduce its greenhouse gas emissions through the development and implementation of a number of strategic documents and initiatives. These initiatives are considered to be diverse and are facilitated within a number of Council's operational areas.

They include:

- development of an Energy Management Plan
- fleet management and fuel savings initiatives programs
- commitment to sustainable events
- development and implementation of a Sustainability Accounting Tool
- participation in the Waste and Sustainability Improvement Payments Program
- continuation of the Sustainability Committee
- commencement of a paper usage review.

Sustainable Events

Council has an important role to play in the implementation and achievement of sustainable practices. Events, whether they are small team meetings or large festivals, include internal stakeholders, external stakeholders or community members/representatives, provide an opportunity for Council to lead by example and to demonstrate its commitment to sustainable practices. Sound and sustainable event management can assist Council to minimise its ecological footprint and associated financial costs by reducing energy and water consumption, greenhouse gas emissions and waste.

During the reporting period, Council continued to implement sustainable event management practices in accordance with its Sustainable Event Management Policy. The policy aims to minimise the environmental impact of Council events, and provide guidance to Council staff in adopting sustainable practices.

In November 2011, Council staff from Environmental Planning, Education and Care Services and Communications and Marketing participated in a two day TAFE accredited training course in sustainable event management. The course provided participants with an overview of sustainable event management practices and enabled a collaborative discussion around how to improve environmental practices at various Council events. Subsequent to the training, a number of standardised environmental practices including the use of electronic forms of communication, the supply of biodegradable utensils, the promotion of recycled bins and the use of tap water instead of bottled water have been introduced.

The following provides an overview of a range of sustainable actions which were adopted and promoted at Council's community events held during the reporting period:

Fisher's Gig 2011

Fisher's Gig is held in association with the annual festival of Fisher's Ghost and is recognised as being Macarthur's largest youth entertainment, arts and cultural event. Since 2009, the event has increasingly strived to be more sustainable.



Fisher's Gig 2011 attempted to capture the thoughts of local youth in regard to sustainability and the environment through the creation of a collaborative art piece - a sculpture in the shape of a human-like tree. Sourced from recycled materials and prepared under the guidance of a local artist, the paper maché sculpture encouraged young people to participate by gluing old newspapers to its body, helping it to grow across the day. In addition, young people were encouraged to write their thoughts about the environment on a leaf and hang it from the sculpture's branches.

A photovoltaic system consisting of six panels was used to power televisions on stage, back-of-stage lighting and an eftp machine. Educational displays and materials promoting environmental sustainability were also provided at the event.

For the third consecutive year, Council also held a post-event community tree planting day which helped to offset carbon emissions from the Gig.

Riverfest 2011

As Council's annual environmental and multicultural festival, Riverfest aims to raise awareness and celebrate the City's local environment and cultural diversity. Community members and organisations are able to join the event as stallholders. Riverfest 2011 was held in September 2011 and saw the inclusion of workshops on waste avoidance and reuse.

Electronic forms of communication were trialled for the event as the preferred option in preparation for Riverfest 2012, which aims to reduce the amount of paper used. Sponsorship packs were printed on elephant dropping paper.

Council promoted the use of water refilling stations and provided residents with reusable water bottles. Stallholders who provided food were required to use biodegradable packaging and utensils. Recycle bins were provided and promoted.



New Year's Eve 2011-2012

The event achieved a paper reduction of approximately 50% associated with printed programs, through the use of large electronic displays.



Major Achievements cont.

Waste and Sustainability Improvement Payments

Council receives annual funding from the NSW Government's Waste and Sustainability Improvement Payments (WaSIP) Program. Since the receipt of these payments in 2008, Council has committed to the implementation of 35 projects which were considered to provide positive benefits to Council and the community in the areas of energy and water reduction, environmental restoration, climate change, sustainable transport and sustainable purchasing.

Some of the projects which were implemented during the reporting period included:

- Installation of a Building Management System at Council's HJ Daley Library - Council completed the installation of a Building Management System to automate the control of lighting and air conditioning within the library.
- Air conditioning replacement at HJ Daley Library - Council replaced the existing air conditioning system which used cooling towers with a more energy efficient system. The new system provides staff with greater temperature control and automatically turns itself off during periods of inactivity. Combined with the Building Management System, the library has seen a 35% reduction in energy consumption and a cost reduction of 41% when compared against consumption in the previous year.
- Sustainability Accounting Tool - Council initiated the development of a business solution to integrate and report on information relating to its electricity, gas, water and paper consumption, as well as its vehicle fleet emissions and waste production. This tool has been developed and is currently in the test stage. It is anticipated that a presentation to Council will be held in the next reporting period with a marketing strategy developed for its promotion.
- Energy initiative review - Council facilitated the preparation of an Energy Management Plan to strategically guide the implementation of energy efficient initiatives within Council's top energy consuming facilities. The plan was finalised in March 2012. In addition to undertaking an audit of energy consuming appliances at each site and providing a categorical breakdown of the energy end users (for example air conditioning, hot water), the plan identified a total of 43 actions for implementation. Due to the significance of the plan, Council is undertaking a peer review of the document prior to its consideration by Council and implementation of the recommendations.
- Bush regeneration works at Milton Park, Botany Place, Redfern Creek, John Kidd Reserve and Smiths Creek - Works across all sites have resulted in an increased rate of natural regeneration, with primary weed control totalling 5.4hectares. Blackberry infestations have been eradicated at all of the five sites. Woody weed control has seen the reduction of woody weeds from three of the five sites and a large reduction in density and extent of African Olive and African Boxthorn from the remaining two sites. Invasive species distribution has been reduced from heavily infested to scattered light infestations across all sites.
- Upgrade of the Civic Centre carbon dioxide control system - Council completed the installation of a carbon dioxide control system in the Civic Centre to reduce the amount and frequency of unrequired fresh air entering the building. This fresh air, when not required, uses unnecessary energy to either heat or cool it to the appropriate temperature.

Paper Consumption Review

Council completed a review of its paper consumption and investigated opportunities to guide a greater organisational commitment to sustainable printing practices. Opportunities focused around the key areas of governance actions, behavioral change campaigns and information technology requirements.







Our Heritage



Overview

Heritage is the most tangible evidence of our history and culture. It includes places, objects and landscapes that have aesthetic, natural, historic or social significance or special values for our community. It links us to our past and provides a sense of belonging. Heritage comprises both natural and cultural elements. Natural heritage consists of ecosystems, biodiversity, as well as land and water.

The original inhabitants of the Campbelltown area were the Tharawal Aboriginal people. European settlement dates from the early 1800s, with land used mainly for agriculture, particularly wheat farming, sheep grazing and dairy farming.

The Campbelltown area boasts a rich European heritage, being one of the first areas of European colonisation in Australia. There are 105 local heritage items identified within the LGA including buildings, monuments, churches, railway stations, bridges, cemeteries, reservoirs, dams, water canals and forests. Of these items, 21 are also recognised as being of state significance and are listed on the NSW State Heritage Register.

There is a strong legislative and policy framework to protect and conserve sites and places of cultural significance at local, state and national levels. At a local level, the *EP&A Act* enables Council to protect heritage items through planning controls such as LEPs and DCPs. Council is currently in the process of reviewing its planning controls to ensure that they afford an appropriate level of protection to Campbelltown's Indigenous, natural, and built heritage. *The NSW Heritage Act 1977* also provides for a significant level of protection and conservation.

These heritage items have the potential to be impacted on by a number of factors, including the development and redevelopment of land and the cost of maintaining heritage items, particularly those in private ownership. Finding appropriate new uses for heritage buildings are also issues of concern.

Indigenous Heritage

The Aboriginal people of southern Sydney and the Illawarra region refer to themselves as the Dharawal people. The Dharawal people lived in the area from the south side of Botany Bay, around Port Hacking to the north of the Shoalhaven River and inland to Campbelltown and Camden. Within the Campbelltown LGA, the Georges River and its associated landscapes provided the Dharawal people not only with food and shelter, but also a rich resource for the expression of their cultural and social heritage. The diversity and number of known Indigenous heritage items within the LGA is a reflection of this, with more than 350 known sites, places and relics recorded.

A number of Indigenous heritage sites within the LGA have suffered damage from human activities such as clearing, development, earthworks and vandalism. The natural forces of wind, water and sunlight also cause damage to sites through erosion and fading. Council faces the challenge of addressing such impacts on Indigenous heritage.

While places of Indigenous heritage significance are protected under the *NSW National Parks and Wildlife Act 1974* and the *NSW Heritage Act 1977*, the inclusion of planning controls within the Campbelltown (Sustainable City) DCP affords another layer of protection and is one way in which Council seeks to conserve Indigenous heritage.

The following table (Table 10) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Heritage.

Table 10. Our Heritage – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Heritage items within LGA	Number of heritage items listed on the NSW State Heritage Register	21 ¹	21 ¹	21 ¹	21 ¹	↔↔	
	Number of heritage items listed on the Local Heritage Register	105	105	105	105	↔↔	
	Amount of funding provided to conservation projects from Council's annual Local Heritage Fund (\$)	5000	5000	5000	5000	↔↔	
Heritage protection	The number of heritage items assisted with funding per financial year	4	4	2	1	↓	
	The number of development applications considered by the Heritage Protection Sub-Committee (HPSC)	-	2	4	3	↔↔	
	Number of main heritage events held by or in conjunction with Council	-	5	3	6	↑	

1. Includes multiple items within the Queen Street Group and St Johns Group.

Major Achievements

Heritage Festival Activities

Council's Heritage Forum was held on Thursday 26 April 2012, as part of the National Trust Heritage Festival. The event celebrates Australia's built, natural and cultural heritage, and is a key event in Campbelltown's annual cultural calendar.

The theme of this year's festival was '*Amazing Stories: Innovation + Invention*'. The broadened scope of this year's Heritage Festival theme encouraged a more abstract concept of heritage, such as cultural and religious traditions, festivals and crafts, urban planning and settlement patterns, innovative product development over time, and intellectual and scientific work in the fields of agriculture, industry, science and technology.

The Heritage Forum was attended by approximately 100 people, surpassing previous years' attendance. The key components of the event included the awarding of the Heritage Medallion, acceptance speech and panel forum.

The Heritage Forum panel comprised of Bob Meyer, Mario Majorich, Craig Knowles and Phil Anderson, discussion focused on the planning and development of the early city of Campbelltown.

The Heritage Forum also included the presentation for the Quota International Campbelltown's Youth Art Competition, which was based around heritage themes and was attended by approximately 60 people.

Other events held within Campbelltown as part of the Heritage Festival program included:

- an exhibition *Innovative Campbelltown Pioneers*, held at Glenalvon House
- the *Two Amazing Tours* and *Tea event* held by Campbelltown and Airs Historical Society at the Cattle Tank and Reservoir, Hurley Park
- a Black Screen Film Festival held at Campbelltown Arts Centre on Saturday 9 July 2011.

Heritage Medallion

Seven nominations were received for Council's 2012 Heritage Medallion. Following a rigorous selection process, the selected medallion winner was Bob Meyer.

Bob was chosen because of his significant commitment to the planning of the City of Campbelltown and his important role in securing Campbelltown's heritage. Bob is recognised for his contribution to the preservation of important historic buildings, identifying and maintaining the green corridor created by the Scenic Hills, his vision of the 'Three Cities Structure Plan' (Campbelltown, Camden and Appin), and his broad vision for the structure and future layout of the city.

NAIDOC Week - Indigenous Heritage

NAIDOC Week provides an opportunity each year to celebrate the Aboriginal and Torres Strait Islander cultures and recognise the contributions of Indigenous Australians in the community. The 2011 National NAIDOC theme was 'Change: The next step is ours' which symbolises taking responsibility for the future, controlling the changes needed to plan and taking action to make it happen.

An official Flag Raising Ceremony including speeches and performances was held on Monday 4 July 2011. The ceremony was attended by 200 members of the Aboriginal and wider community and was followed by a street march to Koshigaya Park for the Family Fun and Cultural Day.

The Family Fun and Cultural Day included entertainment from local and Aboriginal performers, amusement rides, information stalls and community activities. More than 34 organisations provided information on their services and programs on the day. Approximately 1200 people attended the event.

The NAIDOC Week Touch Football Competition was held at Sarah Redfern Oval on Wednesday 6 July 2011 and 16 teams participated in the competition. A range of children's activities were also provided for younger children attending the event.

To assist in the coordination of these events, Council was successful in gaining financial and/or volunteer support from Department of Families, Housing, Community Services and Indigenous Affairs (FAHCSIA), Macquarie Fields Local Area Command, NSW Communities: Sport and Recreation, Commonwealth Bank Australia, Aboriginal Employment Strategy, Campbelltown Family Support Service, Subway Minto, the Aboriginal Events Working Group, the Campbelltown Seniors Issues Group and members of the local Aboriginal community.



Recognition of the Appin Massacre - Indigenous Heritage

Council recognises the impact of the Appin Massacre on the Aboriginal community, both in history and the present day. Council commemorates the event annually with a memorial flag raising ceremony, held on the lawn of the Council Civic Centre, to remember the Tharawal people killed in the massacre of 17 April 1816. A community event is also held at Cataract Dam each year to acknowledge the event.



Our Community



Overview

Our health and wellbeing as a community is directly impacted by the quality of the environment in which we live. Additionally, the environment has an intrinsic value that is beyond the scope of our wellbeing - that it deserves to be conserved for its own sake.

Themes such as water quality, biodiversity (or species richness) and climate change are all areas which humans have the potential to influence, for better or worse. As our community grows, human activities increasingly encroach on these natural areas and ecological systems. Campbelltown is currently home to approximately 147,000 people within approximately 55,000 dwellings. The latest population estimates project a 39% growth in Sydney's population by 2036, translating to about 25,000 new dwellings being needed within the LGA to accommodate this growth.

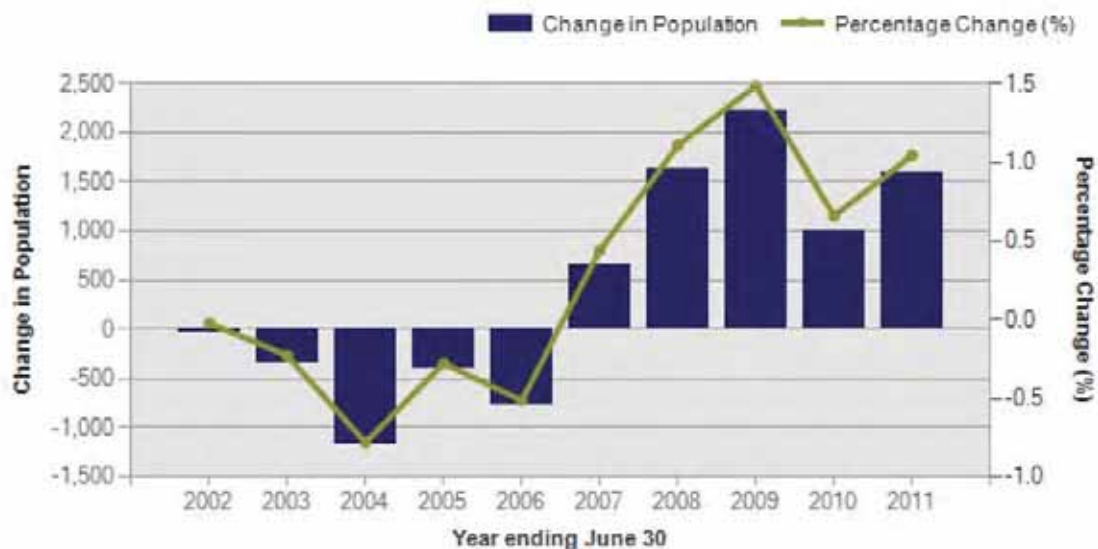
Community engagement and environmental education play a key role in ensuring that residents have the knowledge to make sustainable lifestyle choices, so that our local natural areas and wildlife continue to thrive, and we can continue to enjoy them for generations to come.

Council facilitates and holds a large number of community events each year in order to foster community spirit, improve the lifestyle and wellbeing of residents, and inspire meaningful connections with the local environment. Council also endeavours to provide advice and promote environmentally sustainable messages and practices at these events through the provision of Council stalls and technical staff. These endeavours continue to be guided by Council's Environmental Education Strategy, which was created as a holistic and strategic framework for implementation of community engagement regarding environmental issues.

Key pressures on our community include:

- waste generation
- population increases
- access to transport and infrastructure
- Illegal dumping
- noise, water and air pollution
- food security.

Figure 8 shows the estimated percentage change in population for the Campbelltown LGA for each financial year since 2002.



Source: Australian Bureau of Statistics, Cat. No. 3216.0 - Regional Population Growth, Australia, 2009

Figure 8. Change in estimated resident population for the Campbelltown LGA

The following table (Table 11) provides an account against environmental indicators for the last four reporting periods and any discernable trend, for Our Community.

Table 11. Our community – Reporting on indicators

Category	Indicator	Reporting year					4 year trend
		2008-2009	2009-2010	2010-2011	2011-2012		
Community	Number of community events	12	11	13	19		↑
	Number of bushcare locations	1	4	3	4		↑
	Bushcare volunteer hours worked	190	459	615	692		↑
Population	Estimated population	149,727	151,952	153,222	154,551		↑
	Estimated number of residential properties	50,099	50,211	50,466	50,805		↑
	Estimated number of business properties	2742	2774	2768	2776		↑
	Estimated number of farmland properties	70	69	67	67		↓
	Estimated number of mining properties	0	0	3	3		↑

Major Achievements

Catchment Care Days

Catchment Care Days are aimed at raising awareness among the community of the connections between their actions and behaviours and the health of the local environment, as well as creating a sense of stewardship for the local area. The events involve residents volunteering to plant seedlings, clean up litter, remove weeds and participate in educational activities and discussion relating to stormwater processes, riparian habitats and overall catchment health.

Since the launch of Catchment Care Days in early 2011, Council has hosted four of these events within local waterway reserves. During the reporting period, Catchment Care Day events were held at Park Central, Campbelltown on 16 October 2011 and at Bunbury Curran Park, Macquarie Fields on 4 March 2012.

The Park Central event coincided with National Water Week 2011, which had as a theme 'Raise awareness of the importance of taking care of water catchments' and formed part of the implementation of a Plan of Management for Marsden Park. The event coincided with the installation of a number of signs within the park that provide information on the features of the wetlands and their functions.

The Bunbury Curran Park event coincided with Clean Up Australia Day. The site was chosen to highlight works which were undertaken in 2011 as part of the Upper Georges River USP, which included alterations to the stormwater channel and revegetation to improve the quality of the water entering the Bunbury Curran Creek system. Around 150 new seedlings were planted, weed infestations were treated and approximately eight large bags of rubbish were collected from the site.



Opening of Gabun Gajaaja Reserve, Rosemeadow

Council continued its implementation of a program of works that included the completion and opening of a neighbourhood park facility in Rosemeadow, which was formally named 'Gabun Gujaaja Reserve'. The Aboriginal name for the reserve, meaning 'very good children' recognises its use as a local playground, involvement of the local Dharawal Aboriginal community in archaeological excavations conducted at the site in May 2009, as well as the significance of the reserve and its surrounds to this community.

Gabun Gujaaja Reserve provides a formal entrance into the adjoining Noorumba Reserve, which contains extensive bushland and has a high level of natural and cultural significance. In this regard, a key feature of the recreation facilities is a raised play area in the shape of the threatened Cumberland Plain Land Snail, which is found in Noorumba Reserve.

Gabun Gujaaja Reserve was officially opened by the Mayor on Sunday 16 October 2011. The event was well attended by local residents. Activities at the event included speeches from representatives of the local Aboriginal community, a formal smoking ceremony, games organised by the local Aboriginal community and a display from the NSW RFS.

Macarthur Nature Photography Competition

In November 2011, the Macarthur Nature Photography Competition attracted a record 330 entries from around the region. The competition actively seeks to engage people with the local environment through nature photography. A series of nature walks with an expert photographer were held in bushland areas within the Macarthur region.

Council has been a major sponsor and administrator of the event since it began six years ago. The competition awards night was held at the Ingleburn Community Centre on 18 November 2011 where TV presenter and producer, Greg Grainger, entertained the audience with inspirational stories of his travels.

While the competition was open to all ages, the photographs were required to be taken within the Macarthur region. The winners received a total prize pool of more than \$4000. All photographs were part of a travelling exhibition undertaken across the Macarthur region.



Threatened Species Art Competition

To coincide with Biodiversity Month in September and Threatened Species Day on 7 September, Council held its annual Threatened Species Art Competition in September 2011. This competition is now in its fourth year and aims to increase awareness among preschool and primary school children about the region's threatened biodiversity and risks to their survival.

The competition was open to all children in the Macarthur region aged three to 12 years old. Participating children were required to research a threatened species from the Macarthur region and prepare a drawing or other artwork relating to that species. This year's competition received a record number of 94 entries. A wide range of threatened species were featured in the entries including the Cumberland Plain Land Snail, the Barking Owl and the Grey-headed Flying-fox.

Entries were judged in four age categories and prizes were awarded to the place winners in each category, as well as the school with the highest participation rate. The winning entries were also incorporated into a 2012 calendar.

As in previous years, this year's entries displayed a high artistic quality and it was evident that many entrants undertook significant research into their selected threatened species.



Major Achievements Cont.

Evolution of the Streamcare Program

In 2003, Council established a Streamcare Volunteer Program, whereby volunteers help regenerate and preserve bushland that is owned or managed by Council. Groups within this program assist in adding-value to Council operations and achieve a higher standard of native vegetation recovery than could otherwise be attained within Council's budgeted resources. Under Streamcare, Council had three volunteer groups operating at Noorumba Reserve (Rosemeadow), Redfern Creek (Macquarie Fields) and Spring Creek (St Helens Park). All three groups were initiated by grant funding whereby their locations had been determined by the government funding body.

In 2012, Council investigated opportunities to expand the program and in March 2012, adopted a trial revised Bushcare model. The new model allows for groups to nominate an area and work under the direction of a Site Management Plan, prepared by Council, with on-ground supervision by a qualified volunteer team leader.

The relative freedom of site selection associated with the alternative Bushcare model, may provide opportunities for more residents to be involved in the program through easier access. Greater ownership and reward are also envisaged as volunteers are working on an area that they feel a 'connection with'.

In June 2012, under the auspice of the Bushcare Program, a Bushcare volunteer group commenced operating at Campbelltown Golf Course (Glen Alpine). Site Management Plans are also being prepared for groups to commence at Lake Mandurama (Rosemeadow) and Quirk Reserve (Bradbury). The trial program will be reviewed in November 2012.

School Workshops

Council engaged Keep Australia Beautiful to deliver two interactive environmental workshops to seven primary schools within the Campbelltown LGA, as part of their EnviroMentors program. The curriculum based workshops included 'Let's do it now' which explored the concept of sustainable living and 'Catchment action' which examined the journey of pollutants through our waterways. In total, approximately 658 students participated in the workshops which were rated by the teachers to be very effective in communicating environmental concerns.



Community Workshops

Council has a strong partnership with the Macarthur Centre for Sustainable Living, a non-profit community-driven organisation that aims to promote sustainable homes and gardens. Council funds various sustainability workshops each year, which are provided free of charge to the community.

Council provided 25 workshops at the Macarthur Centre for Sustainable Living during the reporting period. More than 400 residents attended these workshops, which covered a number of topics, including:

- worm farming
- composting
- no-dig gardening
- mulching
- native gardening
- vegetable gardening
- weed control
- sustainable cooking
- green cleaning.

Workshops are designed to cater for adult participants, with some workshops redeveloped to suit a younger audience. The workshops also included six workshops especially designed for children which were provided during school holiday periods.

The community workshops have received positive feedback from participants, and Council will continue to add new workshops topics to its schedule as demand grows.



Conclusion

The 2011-2012 State of the Environment report acknowledges that the main pressures on the environment in Campbelltown continue to be:

- commercial and urban development
- inappropriate land use such as illegal trail bike riding
- clearing of native vegetation and habitat
- noxious weed invasion
- illegal dumping and litter
- pollution
- heritage destruction and degradation.

In an effort to address these threats, Council is pursuing the following initiatives:

- development of a Comprehensive LEP and associated planning controls
- development of a Biodiversity Strategy
- development of an Illegal Dumping and Litter Management Plan
- development of a Sustainability Strategy
- development of a Review of Environmental Factors process for Council development
- development of a Bushcare Program
- preparation of Plans of Management for Council's parks and reserves
- delivery of a strategically focused compliance program
- delivery of Council's Noxious Weed and Pest Animal Management Strategy 2009-2014
- delivery of Council's Water Quality Monitoring Strategy
- delivery of a Council cleanup program
- delivery of a 'tree swap' program
- implementation of the 2009-12 Environmental Education Strategy.

