

STATE OF THE ENVIRONMENT REPORT 2009/10



Bushcare volunteers harvest seed from the native Kangaroo Grass for reintroduction where appropriate into Parramatta's natural reserves (David Wallace Photography)



One of the most relaxing ways to appreciate the Parramatta River and neighbouring remnant natural bushland is to travel up or down the river on the RiverCat ferry (Karen Steains Photography)



Named after the annual upstream migration of eels (burra) to the tidal reaches of the Parramatta River, the City continues to celebrate its Indigenous cultural heritage



Majestic 19th century government buildings continue to be one of the hidden treasures of Parramatta (David Wallace Photography)

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The *Local Government Act 1993* requires councils, councillors and council employees 'to have regard to the principles of ecologically sustainable development in carrying out their responsibilities'. In response, Parramatta City Council prepares a State of the Environment (SoE) report each financial year in accordance with the Act.

The SoE reports on the major environmental pressures that face the Parramatta local government area (LGA) and provides an explanation of the state of the eight environmental sectors including Land, Water, Biodiversity, Noise, Waste, Air Quality and Global Warming, and Indigenous and Non-Indigenous Heritage. Within the SoE, Council explains in detail how the organisation responded to identified pressures facing the City, including the preparation of environmental plans, targeted strategies and the monitoring of performance trends.

NSW legislation states that State of the Environment report comply with the Pressure-State-Response model of environmental reporting as described below:

Pressure: Identifies and describes the pressure that human activities put on their immediate environment and their natural surroundings.

State: Identifies and describes the current and projected state of the environment.

Response: Identifies and describes the response of councils, government agencies, industry and communities to the pressures on, and state of, the environment.

The supplementary 2009/10 SoE report is available as a separate document on Council's website <www.parracity.nsw.gov.au>.

LAND

PRESSURE AND STATE

Urban development and revitalisation continued to place pressure on Parramatta's finite land resources and open space. The demand for housing has intensified urban consolidation, resulting in smaller building blocks and an increase in high rise buildings.

Projections show that by 2026 the LGA will house an additional 40,000 people. The challenge is to plan for sustainable development through addressing population distribution, accessibility, environmental quality, travel patterns, transport choices, residential quality and the character of residential areas throughout the City.

Other pressures on Parramatta's land include contamination from chemical manufacture, service stations, landfill sites and railway yards, which constrain development and require costly site remediation before re-use. Soil erosion from building sites remains an ongoing problem and places pressure on our waterways through sedimentation. Similarly, acid sulphate soils around the Parramatta River adversely affect new construction materials when the soils are exposed to air during excavation.

Council's Tree Management Officers continue to investigate cases of illegally pruned or removed trees that breach the Tree Preservation Order (TPO).



Council is working with industries fronting onto the Parramatta River to reduce their ongoing impact on water quality (Karen Steains Photography)

RESPONSES

- publicly exhibited a draft revised *Local Environment Plan (LEP)* and *Development Control Plan (DCP)*. The draft LEP is based on strategies outlined in the *Residential Development Strategy (RDS)* and represents a sustainable and staged approach to managing population growth and meeting NSW State Government's objectives and dwelling yield targets
- continued to manage land contamination through the planning and development consent process under the *Environmental Planning and Assessment Act 1979* and various planning instruments including the *Parramatta Local Environmental Plan*, *State Environmental Planning Policy No. 55 – Remediation of Land* and the *Managing Land Contamination – Planning Guidelines*
- planted more than 700 trees under Council's City of Trees Program in our streetscapes and parks
- continued to deal with matters of poor soil and sediment control on building sites, with regular inspections by Council's Environmental Health Officers, Development Control Officers and Rangers, and issue of notices for breaches.



The volume of vehicles and people daily travelling to and from Sydney's second CBD impacts the local environment (Clear View Imaging)

WATER

PRESSURE AND STATE

Parramatta's 65 km of waterways continue to be affected by litter, nutrients, sediment, toxicants and bacteria resulting from stormwater discharges, sewerage leakages and overflows.

While the ongoing expansion of hard surfaces through construction activity accelerates run off and soil loss, trends show a decrease in suspended solids washed into Parramatta River's upper catchment. High levels of suspended solids are present within our waterways after wet weather, reducing light levels and smothering bottom dwelling species.

Introduced plant and animal species compound the pressures on the waterways, affecting recreation activities such as swimming and fishing. While Council continues to implement significant flood mitigation works in the upper catchments, these measures cannot comprehensively flood-proof the City, given the extent of urban development within the floodplain.

Although data indicates that most streams in Parramatta are in poor condition, some are improving based on recent scientific studies.

Council also maintains 438 km of stormwater discharge drainage pipes and puts in place stormwater drainage and flood mitigation measures to minimise impacts of flooding, maintain safe access and protect life and property during heavy rain.



Originally dammed to provide a reliable water supply for the colonial settlement of Parramatta, Lake Parramatta offers visitors a relaxing setting (David Wallace Photography)

RESPONSES

- continued to implement the various *Waterway Rehabilitation and Maintenance Masterplans*, the *Parramatta River Foreshore Plan 2009-16* and the *Environmental (Waterways) Improvement Program 2009-13*
- completed the draft Parramatta River Estuary Processes Study, a precursor to the Estuary Management Plan
- completed an aquatic biological survey of 20 sites across Parramatta's waterways using indicators of health such as water quality, macroinvertebrates, diatoms, fish and macroscopic plants/algae. Results of health were correlated with the amount of imperviousness (and resulting stormwater runoff) within the respective catchments
- installed stormwater pollutant traps at Pendle Hill (off Wentworth Avenue), Harris Park (Wigram Street) and South Granville (Dixmude Street)
- supervised contractors cleaning and maintaining over 140 stormwater pollution assets, removing over 460 tonnes of litter, sediment and organic matter that would otherwise choke our waterways
- targeted aquatic weed infestations in Lake Parramatta Reserve, Parramatta and Duck rivers, and Darling Mills, Toongabbie, Vineyard, Pendle, Coopers and Ponds/Subiaco creeks
- stabilised drainage lines by constructing sandstone 'armouring' and planting on Quarry Branch Creek at Model Farms Reserve, Winston Hills; on Parramatta River foreshore at Hilder Road Reserve, Ermington and Baludarri wetland, Parramatta; at Third Settlement Reserve, Winston Hills; and Ray Marshall Reserve (Duck River), South Granville

- implemented actions identified within the Toongabbie Creek Platypus Recovery Plan including targeted fox den fumigation at Bellbird Bend and Milson Park, tree planting at Tartoola Reserve and Robin Hood Park, and weed removal in specific creek bank locations
- continued work on three major urban sustainability grant projects funded by the NSW Environmental Trust, namely: Sustaining the Parramatta River (\$1.943 million), Camellia – Silverwater, a model for industrial sustainability in the Duck River Catchment (\$1.32 million) and Sustainable Water Management in the Duck River Catchment (\$1.829 million)
- updated Council's draft *Development Control Plan (DCP)* to include revised water quality targets, stormwater drainage and water sensitive urban design requirements for new development
- updated Council's *Urban Design Guidelines* to include standard drawings for water sensitive urban design applications in public streetscapes
- completed mapping of drainage infrastructure locations and condition for inclusion in Council's *Strategic Asset Management Plan*
- maintained Council's extensive drainage system which covers over 438 kilometres of pipe network and over 21,000 drainage pits.



The headwaters of the Parramatta River come together upstream of Parramatta Park (David Wallace Photography)

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BIODIVERSITY

PRESSURE AND STATE

Parramatta's biodiversity has markedly declined since the arrival of non-Indigenous people over 220 years ago and subsequent disappearance of the magnificent forests that once covered the Sydney basin. The clearing of trees and undergrowth to make way for farming during NSW's colonial period was followed by escalating demands for land for housing and industry. As a result the total area of native vegetation under Council's management is now just 326.3 hectares. Given the City's total area of 61 square kilometres, Parramatta's proportion of native vegetation is a mere 5.42 per cent. The remnant native vegetation includes wetlands, remnant canopy trees and 11 different vegetation or ecological communities, eight of which are classified of state or national significance.

Protection and enhancement of native vegetation corridors on public and private land remain critical for the protection of the local government area's remaining biodiversity. Terrestrial and aquatic biodiversity continue to be severely impacted by stormwater volume and quality (including sewerage, fertilisers and industrial pollution). Human impacts on the Parramatta's biodiversity range from mountain bike-related erosion to over use of limited natural bushland resources.

Our core areas of bushland vary from good condition (Duck River Bushland) to fair (Galaringi Reserve). The bushland corridors along our creeks vary in quality from fair to poor. The majority of Parramatta's smaller isolated bushland remnants and minor corridors are in poor condition because Council's management resources focus by necessity on larger reserves.

RESPONSES

- managed over \$2 million of bushland regeneration, waterways rehabilitation, and creek maintenance projects across 67 reserves containing natural areas
- continued to deliver actions within the *Natural Areas Plan of Management, Open Space Plan, Waterways Maintenance and Rehabilitation Master Plans, Biodiversity Plan* and local area plans of management (POMs)
- produced and installed signage along Settlers' Walk Track along Toongabbie Creek, from Oakes Road to Old Windsor Road, Toongabbie
- undertook planting days and environmental activities with four schools in Granville, through a grant received from local business Merck Sharp and Dohme
- constructed and realigned two stormwater outlets in Moxhams Park, Winston Hills, funded by a Landcare Grant, to control overland surface water flow and the removal of woody weeds
- removed noxious weeds and continued bushland regeneration along the Parramatta and Duck rivers; and Ponds/Subiaco, Vineyard, Toongabbie, Terrys, Finlaysons, Milsons, Coopers, Quarry Branch creeks, and Lake Parramatta to protect the long term sustainability of endangered ecological communities
- undertook feral animal control in several bushland reserves across the area, targeting rabbits, foxes, introduced honeybees and European wasps
- undertook large scale remediation of asbestos contamination on A'Becketts Creek, Rosehill, Lake Parramatta Reserve and Molly's Track within Vineyard Creek by way of crushed sandstone capping
- upgraded and/or constructed new walking tracks in Dundas Valley as well as Duck River, Lower Ponds and Vineyard creeks
- enlisted over 50 staff members to take part in World Environment Day activities in 2010, the Year of Biodiversity
- co-ordinated 125 participants who planted more than 4,500 native tube stock at Fred Spurway Reserve Eastwood as part of National Tree Day 2009
- continued supervising and resourcing Parramatta's 200 Bushcare volunteers who work year 'round to provide new habitat for local wildlife
- handed out over 1300 seedlings under the annual free tree give away program to encourage local residents to help green our City
- continued restoring grasslands and bushland remnants at Waddangalli Woodland, Guildford.



Slowing down and filtering Parramatta's stormwater run off helps reduce the impacts on wildlife species that rely on clean, clear water (Karen Steains Photography)

NOISE

PRESSURE AND STATE

The intensification of land use continues to increase noise levels across the LGA. As dictated by Sydney's *Metropolitan Strategy*, the increased residential density will be mostly satisfied by locating high rise developments along busy road and rail transport corridors, exposing occupants to elevated noise levels. A variety of legislation, policies and Australian Standards are applied by Council officers during early planning stages and in regulating noise from existing sources to ensure that it does not exceed guidelines.

Most noise complaints received by Council involved barking dogs, construction works, domestic noise sources (stereos and electronic equipment, air conditioners, swimming pool pumps, intruder alarms), noise from roosters and other birds, industrial sources and backyard business operations. Council Officers regulate these matters by issuing appropriate letters and notices requiring rectification of offending noises.



For people living along busy corridors, traffic noise can be an unwelcome intrusion into their daily lives (Karen Steains Photography)

RESPONSES

- continued to actively respond to noise complaints throughout the year mainly in relation to barking dogs and construction works associated with development consent
- continued assessing acoustic reports submitted with development applications for development proposed for major transport corridors (road and rail) and any other noise generating industries or activities. Appropriate conditions are placed on development consents issued by Council to ensure that the development incorporates required design elements to protect residents and the environment from undue noise.



Noisy construction work in a highly urbanised City such as Parramatta has adverse impacts on surrounding residences (Clear View Imaging)



Trains, buses and heavy vehicles add to the noise levels generated by day-to-day vehicular traffic



One of the key kinds of noise that residents complain about are dogs barking at unwarranted hours both day and night

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WASTE

PRESSURE AND STATE

The amount of waste generated by Parramatta's expanding residential population, workforce and business activity continues to increase, posing a challenge for Council as the availability of local and regional landfill disposal options decreases. Increasing the amount of waste diverted to recycling and/or re-use is complicated by the composition of consumer product packaging and poor separation of materials by consumers.

As the costs of disposal increases, Council has been investigating alternatives as it strives to achieve environmental sustainability. Educating the community about waste generation and Council services continued to be complicated by the continuous turnover of rental properties, and high percentage of residents from non-English speaking backgrounds (NESB) settling in the area. Because of different approaches to collection services between councils, education of new residents remains vital.

Despite these challenges, recent strategies adopted by Council have increased the amount of waste diverted from landfill, a pleasing trend that should continue into the future.



*Small as they may be, improperly disposed of cigarette butts are an unwelcome eyesore
(David Wallace Photography)*

RESPONSES

- awarded a tender to WSN Environmental Solution to build an AWT (Alternate Waste Treatment) facility and have it operational by 2012/13, diverting an estimated 80 per cent of Parramatta's putrescible waste from landfill
- held a Clean Up Australia Day on Sunday 7 March, with the 30 sites registered in the Parramatta local government area collecting approximately six tonnes of rubbish
- managed 23 sharps bins across the LGA collecting approximately 500kgs of used injecting needles, a significant increase of the previous year
- implemented a cigarette butt littering awareness program for the Parramatta City centre
- conducted 21 waste and recycling workshops across the Parramatta LGA, with a further 90 workshops held at local schools involving over 3000 students.
- implemented a new in-house waste system for our major buildings, including the Darcy Street Administration Building, Council Chambers, Central Library, Morton Street Depot and Parramatta Heritage and Visitor Information Centre
- implemented the recommendations of our Cleansing Team Review to reduce double handling of waste and review work scheduling and commencement times to decrease greenhouse gas emissions from Council vehicles
- initiated an illegal dumping education campaign and hotline 1800 DUMPED targeting illegal dumping of household goods in high density residential areas
- continued the residential Street Sweeping Recovery program involving the collection, screening, testing and reuse of swept material, estimated to save Council over \$40,000 in landfill tipping fees annually.



Illegal dumping of waste impacts bushland reserves and the enjoyment of visitors



Picking up and legally disposing of dumped household goods is an ongoing cost to Council that could be better spent



One of Council's most widely recognised responsibilities is to organise the weekly collection of household garbage and recyclable materials

AIR QUALITY AND GLOBAL WARMING

PRESSURE AND STATE

Parramatta's air quality continues to be affected by pollutants generated throughout the Greater Sydney metropolitan area, with intensified urban development and an inadequate public transport infrastructure compounding the problem.

The NSW Department of Environment, Climate Change and Water (DECCW) monitors air quality on a regional basis and reports the result as a Regional Air Quality Index (RAQI).

Vehicle exhausts, poor soil management on construction sites, spray drift and chemical use in car detailing and panel beating, and domestic and industrial fumes contribute a wide range of pollutants to the City's air quality. These include greenhouse gases, photochemical smog, fine particulate pollution, carbon monoxide, sulphur, lead, dust and odours.

The most common complaints received by Council relate to odours, smoke from backyard burning and wood heaters, as well as industrial chemicals and dust.

While global warming is an issue of regional and international significance, Council is developing local initiatives to help improve air quality and reduce global warming in Western Sydney. As well as reducing its own greenhouse gas emissions, Council is working with the community to tackle climate change issues, while promoting more sustainable modes of transport and reducing the number of vehicles daily travelling to the City centre.

RESPONSES

- continued to regulate small to medium sized industry and respond to complaints about air pollution
- continued to purchase 100 per cent accredited GreenPower for all Council assets and 10 per cent GreenPower for street lighting
- completed the retrofit of T5 energy saver lights in our main administration building to reduce energy consumption by about one third
- installed solar powered lighting along the pedestrian path between Gasworks Bridge and Charles Street ferry wharf, Parramatta
- completed an energy audit of Council's four multi-story parking stations in the CBD
- replaced energy intensive lights at Riverside Theatre, Council libraries and Heritage Centre with low consumption LED alternatives and motion sensors in less frequented areas
- commenced a Community Climate Challenge in partnership with the Nature Conservation Council in which over 400 residents participated to assess where energy and water savings could be made in the home
- organised Walk to Work and Ride to Work Day events as part of Council's Commuter Challenge month held each November
- participated in Earth Hour for the fourth year running and continued our commitment to the national CitySwitch program for office tenants

- continued our free city bus service 'The Loop' to connect tourists, residents and commuters to the commercial, retail and recreational landmarks of the City centre, powered by low fuel consumption, less polluting diesel engines.



During 2009/10, energy audits of Council's multi-storey parking stations were completed



Council continued its efforts to encourage commuters to use public transport and local businesses to monitor and reduce their energy consumption (Clear View Imaging)

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NON-INDIGENOUS HERITAGE

PRESSURE AND STATE

Pressures that threaten the integrity and longevity of Parramatta's extensive non-Indigenous heritage include urban consolidation resulting in demolition of and damage to heritage sites as well as encroachments by unsympathetic development and transport infrastructure. Other threats include natural deterioration and damage resulting from human activities (recreation and vandalism), and the general lack of community awareness, appreciation and respect for cultural heritage.

Parramatta's non-Indigenous heritage sites, including an extensive collection of 19th and early 20th century buildings, continue to face pressure from office, retail and residential developments, and transport corridor upgrades. Council continued to promote heritage in the Parramatta LGA, greatly enhanced by its partnership with the Heritage Advisory Committee and heritage agencies such as NSW Heritage Office and NSW branch of the National Trust. Council's activities have a major beneficial impact on the environment by protecting and enhancing Parramatta's heritage through heritage grants, heritage awards, policies and planning controls and importantly, the Parramatta Heritage and Visitor Information Centre (PHVIC).

Although some 1,000 properties and items are listed as of national, state or local significance, and 11 conservation areas registered, many properties suffer from neglect and Council's cultural assets collection remains at risk through the lack of resources for storage, conservation and documentation of non-Indigenous items. The major challenge for Council is to adequately protect and recognise Parramatta's rich heritage,

given budget and staffing constraints, development pressures and neglect of many properties.

Parramatta City Council's management of its heritage sites and items is guided by the *Heritage Strategy 1993*, the *Local Environmental Plan 1996 (Heritage and Conservation)*, the *Parramatta Heritage Development Control Plan 2001* and the *Regional Environmental Plan No 28 - Parramatta*. Currently, Council is looking to incorporate the previous planning instruments into a revised comprehensive *Local Environmental Plan* and *Development Control Plan* for the city.



Fronting onto the Parramatta River above the Marsden Street Weir, the former Kings School building appropriately houses the NSW Heritage Office and Heritage Council.

RESPONSES

- continued to plan and develop projects under the Parramatta Stories program to bring the City's heritage to life
- installed new wayfinding signs that will help pedestrians navigate and explore the City on foot
- administered applications under the Local Heritage Fund
- digitised early Council rate and valuation books at the PHVIC, and launched a new public engagement program within the Local Studies Library: Conversations in the Library
- launched a commemorative event to Governor Macquarie – ParraMac – in May 2010 with six individual events in partnership with Riverside Theatre including Luminary, DigiMacq (digital walking tour of heritage sites) and a series of forums entitled The Grand Macquarie Feast, Meet the Macquaries at Parramatta exhibition and tours and an award winning play by Alex Buzo, Macquarie.
- continued restoration of headstones and monuments at the historic St Patrick's and All Saint's cemeteries
- the listing of 11 Australian convict sites, with Parramatta Park and Old Government House included under the joint name of 'Old Government House and Domain') on the UNESCO World Heritage List.

INDIGENOUS HERITAGE

PRESSURE AND STATE

Parramatta's Indigenous heritage faces the same threats as non-Indigenous heritage items, including urban consolidation; encroachment by unsympathetic development; natural deterioration; recreational pressures, and a lack of community awareness, appreciation and respect for cultural heritage.

The establishment of Parramatta and Toongabbie as Australia's second and third European settlements put great pressure on the local Indigenous population and their culture. For this reason, Council is committed to preserving the history and heritage of indigenous Australians.

Parramatta's Indigenous heritage includes physical artefacts, archaeological sites and rock engravings, as well as contemporary places and communities that maintain and sustain strong spiritual and cultural links.

Some 44 Indigenous sites have been registered by the NSW National Parks and Wildlife Service throughout Parramatta. To reduce damage to these sites, Council continues to organise interpretive activities, exhibitions and events throughout the year to raise community appreciation of our original and contemporary Indigenous heritage.



Younger members of the community explore Indigenous culture through art and craft activities (David Wallace Photography)

RESPONSES

- adopted Aboriginal names for two previously unnamed reserves at Broughton Street, Parramatta (Baludarri Wetland), and Barbers Road, Guildford (Waddangalli Woodland)
- completed restoration works at the Lake Parramatta Bush Foods Garden and fencing a remnant Aboriginal campsite at Rydalmere
- continued to build relationships with Indigenous communities, relying on the advice of our Aboriginal and Torres Strait Islander (ATSI) Advisory Committee
- participated in NAIDOC (National Aborigines and Islanders Day Observance Committee) Week celebrations.



Annual NAIDOC Week activities remind the community that the City of Parramatta was originally home to the Burrumatta clan (Karen Steains Photography)



Indigenous artworks have been incorporated into the surfaces of Parramatta's high profile cycleways

For Council's comprehensive State of the Environment Report go to Council's website (www.parracity.nsw.gov.au) and search for it in Publications.



Performance and dance remain at the heart of local residents who proudly identify as Indigenous people (Karen Steains Photography)