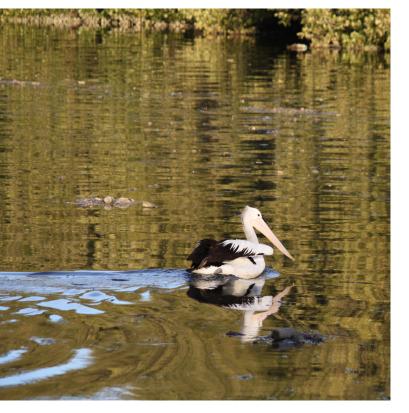
Cooks River Alliance Management Plan 2014









Ashfield Bankstown Canterbury City of Sydney Hurstville Marrickville Rockdale Strathfield The Cooks River Alliance draws upon the combined resources, experience, knowledge and skills – within member council and communities – to address the complex environmental challenges of the Cooks River catchment

> photo by Chris Hudson bush regeneration cover photo (top right) by Jakki Trenbath pelican cover photo (bottom left) by Ranjith Evas community raingarden construction cover photo (middle left) River Health monitoring cover photo (top left)

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1. Introduction

The Cooks River Alliance (the Alliance) was established on 3 May 2011 with the signing of a Memorandum of Understanding (MoU) by the eight founders – Ashfield Council, Bankstown City Council, City of Canterbury, City of Sydney, Hurstville City Council, Marrickville Council, Rockdale City Council and Strathfield Council.

The Alliance operates according to an agreed Terms of Reference, which sets out the roles and responsibilities of the Alliance Board, Executive, Steering Committee, Action Groups and Alliance Staff.

The Alliance builds upon previous Cooks River council partnerships and projects. It has evolved from the Cooks River Foreshores Working Group (1998-2011) and the successful *OurRiver Cooks River Sustainability Initiative* project (2007-2011).

Aboriginal Cooks River

The Cooks River Alliance accepts and respects that Aboriginal cultural heritage, beliefs and relationship with the land and waterways belong to Aboriginal communities. The Alliance acknowledges that these are of continuing importance to Aboriginal and Torres Strait Islander people living today. The Cooks River Alliance will seek to engage meaningfully with all relevant local Aboriginal communities.

Challenges for the Cooks River and the Alliance

A number of major issues contribute to the degradation of the river:

- The catchment is densely populated and highly urbanised
- High levels of urban development and surface imperviousness
- Natural areas have been removed, replaced and fragmented
- A stormwater system focussed solely on drainage and flood control – stormwater carries pollution, impacts stream flows, and fouls aquatic habitats
- Degraded sewer and stormwater infrastructure, including sewer overflows into the River during intense or prolonged rainfall
- Sediments and banks holding a history of dangerous industrial pollutants, which prevent natural processes that filter pollutants and reduce flow
- The catchment crosses multiple jurisdictional boundaries
- Low levels of capacity for sustainable urban water and catchment management
- A history of a mono-disciplinary approach to issues, a lack of evidence based collaborative decision making, and actions not tailored to local contexts

An evolving city which promotes a sustainable and safe community that connects people and places, and celebrates diversity."

- Extract from Hurstville Community Strategic Plan 2021

This Alliance Management Plan has been created to guide the work of the Cooks River Alliance. The purpose of this Plan is to set high level strategic directions for the Cooks River Alliance Board, Staff and Steering committee. This 2014 version follows the first, written in 2012.

The Management Plan is supported by the Alliance Action Plan 2014-2017, which outlines program work areas.

The Alliance staff provide management and services to members, and collaborate widely for a healthier catchment.

Alliance mission and focus areas

"Councils working together with communities for a healthy Cooks River catchment"

This mission statement was developed with the understanding that councils: have a key role in the management of stormwater on public and private lands; can harness the collective action of communities; have regulatory relationships with the NSW Government; and are well placed to collaborate with stakeholders to implement change at household, streetscape, neighbourhood and regional scales.

The Alliance will achieve this mission by addressing six focus areas:

- Sustainable urban water management
- Biodiversity
- Community action
- Capacity building
- Catchment information
- Catchment resilience

Alliance long-term outcomes

The Alliance recognises that improving the Cooks River catchment requires knowledge, innovation, cooperation, collaboration and actions. The Alliance and Cooks River communities will see success when the following outcomes are realised:

- The quality and volumes of water flowing to the Cooks River from all parts of the catchment better reflect the natural water cycle
- Natural habitats are thriving and connected across the catchment
- Communities actively participate to improve the health of the catchment
- The Alliance councils have a high capacity for, and are known for, their leadership in sustainable urban water and catchment management
- Accessible, centralised and up-to-date information about the catchment is readily available
- The catchments resilience to pressures from changing environments has increased

The community wants clean waterways, healthy green corridors and to produce a smaller environmental footprint. The community also wants Bankstown to be leader in environmental protection and management. Protecting waterways and environmental education are areas in which the community wants further investment."

- Extract from Bankstown Community Plan 2023

Alliance partners

The current Alliance partners are eight member councils: Ashfield, Bankstown, Canterbury, City of Sydney, Hurstville, Marrickville, Rockdale and Strathfield (shown in the table below).

An open invitation to join the Alliance is extended to the other catchment councils: Burwood, Botany Bay, Randwick, Auburn and Kogarah.

Alliance benefits and achievements are reported annually to all councils in the catchment. The Alliance has many stakeholders to work with:

- 500,000+ residents living and/or working in the catchment
- 20+ community environment groups
- Users of the Cooks River shared path and other recreational facilities along the foreshores
- 5+ Regional Council Groups
- Aboriginal advisory groups and land councils
- Various Federal and State Departments, Agencies and Corporations
- Non-member local councils

Councils in the Cooks River catchment

Council	% of LGA in Cooks River Catchment	% of Catchment in the LGA
Ashfield*	3	1
Auburn	3	1
Bankstown*	13	9
Botany Bay	24	5
Burwood	31	2
Canterbury*	81	24
City of Sydney*	43	10
Hurstville*	36	9
Kogarah	3	1
Marrickville*	74	12
Randwick	4	1
Rockdale*	66	20
Strathfield*	53	7

*Alliance member

Alliance approach

The Alliance incorporates the Quadruple Bottom Line approach, as set out in the Local Government Integrated Planning and Reporting framework. The Quadruple Bottom Line approach addresses social, environmental, economic and civic leadership considerations.

The Alliance uses the following approaches to achieve the long term outcomes:

Place based solutions

The Alliance will work at a community scale to implement locally appropriate solutions – contributing to catchment-wide improvements

Education and training

The Alliance will focus on education and training for staff in member councils and local communities on issues across the six focus areas

Collaboration

The Alliance will facilitate collaboration between member councils, professional disciplines, within communities, and between agencies including other regional bodies of councils

Communication

The Alliance will be transparent and open with communications and will share and exchange information with all stakeholders. The Alliance will promote understanding, importance, and significance of Botany Bay

Creative resourcing

The Alliance will allocate its annual resources according to Management and Action Plans and will actively seek support and additional resources to implement catchment projects

Evidence based decision making

The Alliance will gather data and information across the six focus areas to guide future planning and management

Alliance structure

With an emphasis on sustainable governance and collaboration, the Alliance structure will be reviewed as required to ensure flexibility for growth and development. The structure and operations are detailed in the Terms of Reference.

Alliance functions

Alliance functions are detailed in the Alliance Acton Plan 2014-2017. Administrative functions include:

- Review of the Management Plan, Action Plan, Terms of Reference and production of Annual Reports
- Coordination of meetings and provision of administrative support for the Alliance Board, Executive, and Steering Committee, Action Groups and others as required
- Management and reporting on Alliance finances and budgets
- Seeking funding opportunities, writing and submitting funding applications, and applying for awards
- Reporting on grant progress and undertaking acquittals
- General communications, public relations and correspondence
- Office management, staff recruitment, management and professional development

Alliance reporting and review

The Alliance Management Plan will be reviewed in 2017-2018. The Action Plan will be reviewed as required as well as in 2017-2018.

An Alliance Annual Report on each year's activities and achievements is presented to the Alliance Board.

A great place to live, play and work. There are beautiful parks, gardens and green open space, particularly along the Cooks River, with outdoor recreation facilities, walking tracks, bike paths, and plenty of places for children to play. We take care of our natural environment, save water, recycle, support community gardens, and use renewable energy."

- Extract from Canterbury Community Strategic Plan 2014-2023

Catchment and river system

The Cooks River is a highly urbanised catchment located in the inner south western suburbs of Sydney, flowing 23 kilometres from Graf Park in Bankstown and flowing into Botany Bay at Kyeemagh. The River is joined by a number of tributaries along its course listed below – from the upper to lower catchment:

- Greenacre Creek
- Cox's Creek
- Cup and Saucer Creek
- Bardwell / Wolli Creeks
- Muddy Creek
- Sheas Creek/Alexandra Canal

The river system is divided into the upper, middle and lower catchments. These catchments have their own characteristics and associated management issues. The table below highlights the varying characteristics across the three different catchments.

Characteristics across the catchment

	Upper	Middle	Lower
	catchment	catchment	catchment
River frontage	non- foreshore	non- foreshore & foreshore	non- foreshore & foreshore
River type	freshwater	freshwater & estuary	estuary
River	concrete	concrete &	concrete &
channel		natural	natural

Activities in the upper catchment impact the quality and amenity of the River in the middle and lower catchments. Addressing these issues requires tailored approaches to actions and collaboration with neighbouring councils. Understand the impacts of human activity on the environment and sustainable living has become a way of life. Resources are not wasted and residents and businesses are energy, water and waste wise."

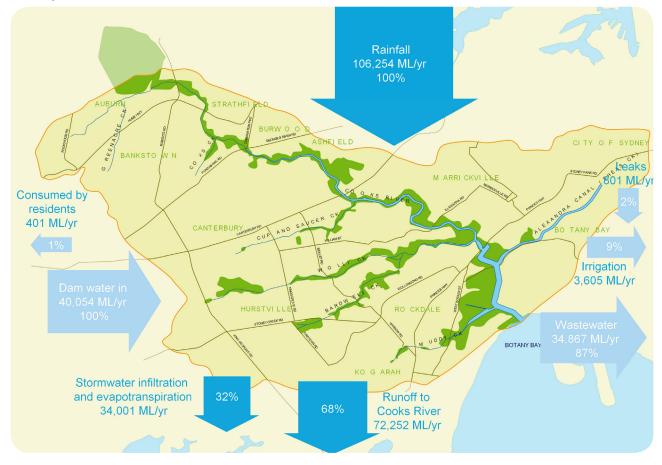
- Extract from Ashfield Community Strategic Plan, Ashfield 2023: Our Place, Our Future.

Cooks River water cycle

The two main sources of water flowing into the catchment are rainfall, and water imported from Warragamba Dam. Rainfall delivers more than twice as much water to the Cooks River catchment in comparison to water imported from Warragamba Dam.

In a natural catchment, the majority of rainfall soaks into the ground and is used by vegetation. However, the Cooks River catchment is highly urbanised and there is a great deal of impervious surface.

The map below illustrates the water cycle for the Cooks River catchment. The extent of the stormwater problem and potential solutions may be inferred from this map. The urbanisation of the catchment has two prominent effects. First, the inability of water to soak into the ground means that rather than a relatively constant moderate flow, the Cooks River experiences very low flows during dry periods and very high flows after storms – causing erosion and flooding. Secondly, the stormwater runoff fouls the river with litter, petroleum derivatives, excess nutrients and other pollutants. In the current stormwater management regime, there is wastage of significant water resources and increased erosion, flooding, and pollution.



Water cycle in the catchment

River Health

The Alliance supports the River Health Monitoring Program operated by sister organisation the Georges River Combined Councils Committee (GRCCC). The River Health program has been monitoring the Cooks River since 2011, and produces technical reports and report cards. These reports assist councils in evidence-based decision making for management actions.

The health of the Cooks River can be measured in part by water quality, vegetation and macroinvertebrates.

Water quality is an important factor for a healthy ecosystem. Monitoring water quality in streams, wetlands and estuaries helps understanding of how urbanisation and changed land use practices affect the health of the river and estuarine ecosystems.

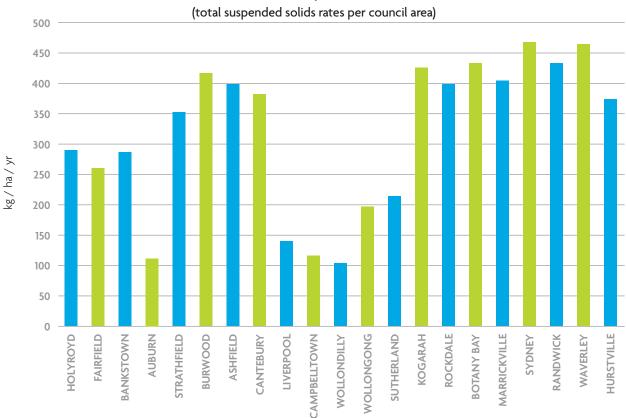
Healthy vegetation communities are important for maintaining a functioning ecosystem. Vegetation plays a major role in providing habitat, nutrient recycling, regulation of temperature and filtration of urban runoff. Macroinvertebrates are small animals without a backbone, such as snails, worms and dragonfly nymphs. They live in all freshwater creeks and streams and are particularly sensitive to changes in water quality and environmental pressures.

The quality of water of the Cooks River is currently considered unfit for contact by humans.

River Health monitoring supplies baseline data which contributes to our understanding of environmental changes over time.

Sediments and pollutant loads

Twenty one different local government areas drain into Botany Bay. The graph below shows the high amount of pollutants generated by the Cooks River catchment councils due to the catchment area being highly urbanised. Increased development can lead to increased sediment loads, which are a significant challenge.



Sediments and pollutant loads

Source: Sydney Metropolitan Catchment Authority, 2009. Botany Bay Water Quality Improvement Plan

Land use

Land use in the catchment ranges from industrial to open space. Residential land use is predominant. A corridor of open space fringing the Cooks River, Cox's Creek, Wolli Creek, Bardwell Creek and Freshwater Creek has survived development pressures and, although narrow in many parts, constitutes a significant portion of the open space in the catchment.

The foreshores of Muddy Creek, Alexandra Canal/Shea's Creek and Cup and Saucer Creek are more developed with less open space. A portion of this significant corridor is owned by State authorities, including Sydney Water, NSW Land and Housing Corporation, NSW Department of Education and Communities, Transport for NSW and the Roads and Maritime Service.

The Cooks River catchment contains: major national and state highways, four rail lines and three major rail service areas, and Sydney's airport. The airport covers approximately 457 hectares of reclaimed land that lies within the catchment.

The small proportion of park and bushland, and the high proportion of urban, industrial and commercial areas in the Cooks River catchment, mean there are large areas of paving. This results in high volumes of stormwater runoff since rainwater cannot soak into the ground. The graph to the right depicts land use in the Cooks River area.

•

Source: Cooks River Alliance Discussion Paper 2011

Supporting high quality, well planned and sustainable urban and natural environments that balance well designed and innovative development with existing local character whilst protecting and enhancing the natural environments."

- Extract from Strathfield Community Strategic Plan 'Strathfield 2025'

Climate change

The global climate is changing. An increasing evidence base shows that climate change is already affecting many natural and human systems and posing significant risks to human health, ecosystems, infrastructure, agricultural production and communities. The Intergovernmental Panel on Climate Change (IPCC 2014) fifth assessment report states:

- The atmospheric concentrations of greenhouse gases carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) has substantially exceeded the highest concentrations recorded during the past 800,000 years
- The global average combined land and ocean surface temperature has increased by 0.85°C over the period of 1880-2012
- The number of cold days and nights has decreased and the number of warm days and nights has increased on the global scale
- The global average sea level rise has been 1.7m since the start of the 20th century (1901–2010)

Our community will ensure it protects and enhances the natural habitat on public and private lands. Our water catchment areas will be clean, provide healthy eco-systems, free of pollutants. We will work to ensure that it is part of everyone's everyday life to 'reduce, reuse and recycle' and we will continue to plan to mitigate impacts of climate change."

- Extract from Rockdale Community Strategic Plan 2025 The regional climate is changing and will continue to do so:

Rising temperatures

By 2050 Sydney is projected to become hotter with the maximum temperatures to rise by 1 to 2°C . This will lead to more heat related deaths, such as the February 2009 heatwave in Melbourne which caused 320 deaths.

Changes in fire weather

Widespread increase in mean daily Forest Fire Danger Index (FFDI) is projected as is an increase in the number of days with FFDI over 50 (indicating extreme fire weather conditions). This will lead to increased loss of life, damage to property and economic loss, such as the 2009 Victorian bushfires which caused 173 deaths and destroyed over 2000 buildings.

Sea level rise

Sea level around Australia has been rising at an average rate of 1.4mm per year. For the NSW coast, the sea level rise is projected to increase 40 cm by 2050, and 90 cm by 2100, above the 1990 mean sea levels.

Changes in rainfall pattern

Sydney is projected to become wetter, with higher annual rainfall projected to increase by 90 to 450mm per annum by 2050. The rainfall intensity is projected to increase. Higher ocean levels and more intense storm events will result in increased flooding and property damage. Flooding in Queensland in 2011 caused significant damage to infrastructure and housing and was responsible for 35 deaths.

(Source: Unpacking the IPCC Fifth Assessment Report: impacts, adaptation, and vulnerability, Climate Council 2014; Summary for Policymakers, Intergovernmental Panel on Climate Change 2014; and The Sydney Climate Storyline, NSW Office of Environment & Heritage 2013)

The Cooks River Foreshores Working Group (CRFWG) 1997-2011

In 1997, a working party consisting of Marrickville, Strathfield, and Canterbury councils, the Cooks River Catchment Management Committee, the NSW Environment Protection Authority, Greening Australia, and the NSW Department of Land and Water Conservation commissioned and published the Cooks River Foreshores Strategic Plan. This Plan was a management tool for all councils along the River foreshores, and met aspirations of state government bodies and community groups.

Following the completion of the Cooks River Foreshores Strategic Plan, the Cooks River Foreshores Working Group (CRFW) was formed. This Group played a significant role in increasing communication between member councils and state government agencies, and successfully initiated and coordinated the submission of numerous grant applications. The Group established integrated and strategic approaches to the improvement and management of the Cooks River and catchment.

Over twelve years the Group grew from a membership of four to eight councils, and inspired increased community action as well as interest and investments from state agencies.

Our River - Cooks River Sustainability Initiative 2007-2011

In 2007, the CRFWG obtained a three-year \$2m grant through the NSW Environmental Trust for OurRiver Cooks River Sustainability Initiative: a project focused on sustainable urban water management with eight partner councils (Ashfield, Bankstown, Canterbury, Sydney City, Hurstville, Marrickville, Rockdale, and Strathfield).

The OurRiver project used an innovative planning model based on the Urban Stormwater Integrated Management process, in six subcatchments.

The project aimed to:

- Establish the Cooks River catchment as a leader in best practice urban water management
- Improve council capacity for sustainable urban water management
- Increase community capacity, pride and ownership
- Improve river health

OurRiver achieved its aims and produced significant outcomes related to water conservation and River health improvement, council and community capacity building, informed decision making, and regional governance.

The figure overpage gives an overview of many of the initiatives and impacts on the river and catchment since the early 1990s.

Table of Cooks River Activity from 1990s

- 1991 NSW Minister for Land and Water Conservation establishes the Cooks River Catchment Management Committee
- 1993 Sydney Water begins restoration works at Eve Street Wetlands in Arncliffe. Other restoration works commence in partnership with communities e.g. Marrickville Landcare and Bankstown Bushland Society
- 1998 Chullora Freshwater Wetlands constructed first large scale water quality improvement project
- 1998 Cooks River Foreshores Working Group formed
- 1999 Preparation of the Cooks River Stormwater Management Plan by an Association of Councils in the Cooks River
- 2000 State government replaces the Catchment Management Committees with Catchment Management Boards that cover larger areas
- 2004 State government match funds for the Cooks River Foreshores Improvement Program, which led to 36 regional, council and community projects
- 2005 State government replaces Catchment Management Boards with Catchment Management Authorities with expanded areas
- 2006 State government begins replacing failing steel sheet piling with more natural river banks
- 2007 OurRiver project funded by Environmental Trust
- 2008 Federal Government funds the Cooks River Urban Water Initiative and works through the SMCMA to implement \$2M worth of on-ground works
- 2011 Cooks River Alliance formed and eight councils commit to a three-year MoU
- 2012 Sydney Water starts bank naturalisation projects
- 2013 Cooks River Alliance convenes a Catchment Stakeholders committee of councils and State agencies. The Alliance also receives \$2 M from the Australian Government for a four year project of on-ground works, increasing understanding of Aboriginal care for waterways, community engagement and education
- 2014 Catchment Management Authorities (CMA) joined with other State authorities to form Local Land Services (LLS). The Environmental Protection Agency acknowledges it is the appropriate regulatory authority for in-stream Cooks River areas that are outside of Sydney Water and council management

Source: A Cooks River Alliance Draft Discussion Paper March 2011

Development of the Alliance

After twelve years of experience and work culminating in the OurRiver Initiative, the CRFWG clearly identified a number of changes needed to achieve sustainable urban water and catchment management:

- Greater resourcing and resource sharing
- Greater community involvement
- Increased capacity of councils to collaborate with communities and plan for sustainable urban water management
- Improved data and information management
- Stronger focus on water management to address a wide range of natural resource and catchment issues – such as biodiversity, soil health, and development pressures

In addition, sustainable urban water management requires attention to governance. Councils have long been collaborating on the health of the catchment. However, historically management regimes in the catchment focused on protecting property from floods. Although the structure and function of many stakeholders is single-disciplinary, it is increasingly recognised that effective catchment management requires strategically shared responsibilities. Agencies are now seeking to work together to achieve more water sensitive urban environments.

In 2011 the Cooks River Alliance, and a catchment governance framework, was formed. The Alliance is an partnership between Ashfield Council, Bankstown City Council, City of Canterbury, City of Sydney, Hurstville City Council, Marrickville Council, Rockdale City Council and Strathfield Council.

Cooks River Alliance 2011-2013

The early period of the Cooks River Alliance focussed on setting strategic direction and gaining additional funding. Extensive consultation and workshop processes with member councils produced the first Management Plan and Action Plan. In 2013, these Plans were the overall winner of the Local Government NSW Excellence in the Environment Award 'Natural Environment Policies, Planning and Decision Making' category.

During its first term, the Alliance collaborated with GRCCC to extend River Health Monitoring Program to the Cooks River. To provide an assessment of catchment health, the program monitors water quality, macroinvertebrates and vegetation. This gives us an understanding of pressures from an increasingly urbanised catchment, and impacts on River health.

The Alliance received, in 2013, a \$2 million Australian Government grant for a four-year project to deliver on much of the Alliance Action Plan. The project – called Cooks River: Place People.Connections – builds eight on-ground works across the Cooks River catchment area to filter stormwater and remediate wetlands. Under the project, the Alliance and member councils work closely with local communities to engage and educate, especially on how residents can help the health of the Cooks River and tributaries.



5. Focus areas

The Alliance focus areas are based on the lessons, experience and outcomes from previous projects and activities. Determination of focus areas draws extensively upon the knowledge and understanding of member council staff, and ensures Alliance activities have the most impact.

The Alliance will concentrate resources on these focus areas:

- Sustainable urban water management
- Biodiversity
- Community action
- Capacity building
- Catchment information
- Catchment resilience

Sustainable urban water management

Sustainable urban water management is the adaptive, integrated and sustainable management of the total water cycle including land use.

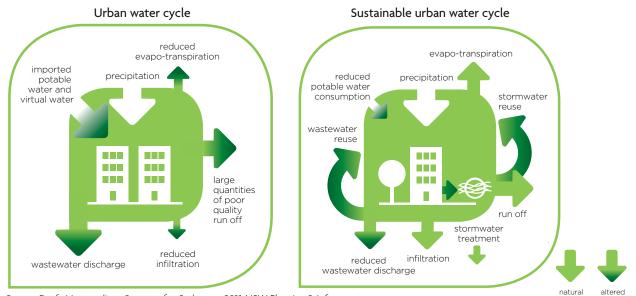
Sustainable urban water management is participatory – involving communities, staff from many disciplines and professions, and other stakeholders in planning and decision making. Member councils have long recognised the importance of sustainable urban water management which includes:

- Reducing reliance on imported potable water
- Reducing the impact of stormwater on waterways
- Reducing the volume of wastewater leaving the catchment

Water Sensitive Urban Design (WSUD) is an important component of sustainable urban water management. WSUD integrates water cycle management into urban planning and design.

Sustainable urban water management informs and underpins all Alliance activities. The figure below left shows an urban water cycle, and the figure below right depicts a sustainable urban water cycle.

(Sources: What is a Water Sensitive City, Water Sensitive Cities 2014; and Delivering sustainable urban water management: a review of the hurdles we face, RR Brown and MA Farrelly 2009)



Source: Draft Metropolitan Strategy for Sydney to 2031, NSW Planning & Infrastructure

Biodiversity

Due to the highly developed nature of the catchment, the remnant wetlands, bushland and surrounding modified areas are regionally important. They support diversity and a number of native fauna species including birds, mammals, fish, reptiles, amphibians, insects and other invertebrates.

The notable wetlands within the Cooks River Catchment are:

- Eve Street (Arncliffe) remnant
- Wolli Creek (Wolli Creek) remnant
- Chullora constructed
- Cup and Saucer Creek (Canterbury) constructed
- Gough Whitlam Park (Earlwood) constructed
- Steel Park (Marrickville) constructed
- Tempe Reserve (Tempe) constructed
- Coolibah Reserve (Bardwell Valley) constructed

Major areas of bushland are found in:

- Wolli Creek Regional Park
- Bardwell Valley Parklands
- Stotts Reserve
- Campsie Remnant Bushland
- Freshwater Creek Bushland at Chullora

Much of the River is flanked by parkland and open space, which is unusual among many urban watercourses. The wetlands, bushland and foreshore vegetation areas are considered to be of high ecological value and important for conservation of biodiversity within the region.

Concerns for biodiversity are central to Alliance activities. The Alliance assists members take a combined approach and provides practical coordination of on-ground activities. The environment is healthy and native plants and animals are thriving. The community works together to achieve the vision of swimming in the Cooks River and to minimise its ecological footprint..."

- Extract from 'Our Place Our Vision' Marrickville Community Strategic Plan 2023

Community action

The Cooks River has a particularly strong history of community leadership in the catchment. For instance, concerned residents formed the Cooks River Improvement League in 1925 – this later became the Cooks River Valley Association (CRVA), which continues to operate today. The Wolli Creek Preservation Society was established in 1983, and aims to ensure the preservation of the natural and cultural heritge of the Wolli Creek Valley. The Alliance website provides links to the community groups that focus on local environment and heritage issues. Many groups also undertake bushland restoration/ bushcare activities.

Any person who relies on, lives in, plays or works in the catchment belongs to the Cooks River community. As the Cooks River Valley Association says: "We are all Cooks River People." The Alliance recognises that community organisations have a vital and essential role in protecting the catchment.

Local people place high value on healthy waterways. The Cooks River parklands are noted as a significant recreation and environmental asset. Cooks River people volunteer as bushcarers, planting trees, removing rubbish, organising cycling and walking tours and assist schools and community groups to understand more about the river catchment and issues.

The Alliance undertakes a wide range of community engagement programs, seeking to involve a broad spectrum of community groups including culturally and linguistically diverse (CALD) communities. Aboriginal communities are engaged through activities and events organised in partnership with the Aboriginal advisory committees to councils. Collaboration with government agencies, industry, commercial centres, schools and large landholders is organised to increase on-ground actions for the improvement of catchment health. The Alliance seeks to effectively communicate messages about the Cooks River catchment to all local peoples.

Councils undertook significant consultation with their communities during the Integrated Planning and Reporting process. Community Strategic Plans extracts included in this Plan highlight community concerns for environment protection.

Capacity building

Councils in the catchment have strengths and abilities across a wide range of areas. A central role of the Alliance is to increase local government expertise. Staffing and councillor changes result in the ongoing relevance of capacity building activities. The Alliance conducts capacity building with a regional perspective.

Capacity building includes:

Intra-organisational capacity

Aspirations, strategy, organisational capabilities, human resources, systems and infrastructure, organisational structure, and culture

Inter-organisational capacity

Cooperation between catchment stakeholders, such as effective inter-agency collaboration and community participation

External rules and incentives

The broader policy and incentive instruments

The Alliance works to increase the capacity of Alliance members' skills and knowledge to implement effective actions for the Cooks River catchment. The Alliance also works to increase capacity of councils to understand Aboriginal perspectives on waterways, as well as increase the capacity of Aboriginal advisory committees.



The Mudcrabs are a community group in the catchment – members are shown here removing fishing line from the foot of a pelican. Photo by Ramjith Evas

Catchment information

The provision of accessible, centralised and up-to-date information is vital for effective management of the catchment.

Information on the Cooks River catchment is held in varied formats and multiple locations including: text, archives, websites, blogs, wikis and maps – held and hosted by local, state and federal government as well as community organisations.

Each member council has information with varying details about the Cooks River catchment and the programs that have been delivered. Information is held on CooksNet, a web portal hosted by Canterbury Council, which contains archives including historical information and former Cooks River project documents. The Alliance assists members to share and distribute information.

From the very large pool of all Cooks River information, the Alliance will focus on information which supports Alliance activities, and publish and present this information engagingly.

> Green with a minimal environmental impact, green with trees, parks, gardens and linked open spaces, with healthy ecosystems and where the air, land and waterways are clean...green by example and green by reputation. Addressing climate change is the biggest challenge we have locally and globally"

- Extract from Sydney 2030 City of Sydney Community Strategic Plan

Catchment resilience

Catchment resilience is the capacity of the catchment to deal with the changing environment, and to be able to minimise any detrimental effects.

The changes in environment include:

Climate change

Measurements from the last 100 years tell us that the Earth's surface is warming along with rising levels of greenhouse gases, and that this warming is leading to other environmental changes. Most importantly for the Cooks River, rising sea levels and rainfall intensity impact on stormwater and road infrastructure.

Biodiversity

Invasive species are one of the greatest threats to biodiversity in Australia. In NSW, pest animals and weeds have been identified as a threat to 70% of the species, populations or ecological communities listed under the Threatened Species Conservation Act 1995 (NSW Office of Environment and Heritage)

Human population and development pressures

Development in Sydney can increase the cumulative effect of natural hazards, such as increased stormwater runoff from more hard surfaces (*Draft Metropolitan Strategy for Sydney to 2031*, NSW Planning & Infrastructure)

Increased urbanisation

Urbanisation impacts on air quality, waterways and biodiversity (*Draft Metropolitan Strategy for Sydney to 2031*, NSW Planning & Infrastructure)

Waterway pollution

Sewage overflow, illegal dumping and litter – including by industry and businesses – are the main sources of pollution in the Cooks River Catchment

The Alliance will take a collaborative approach to address these whole-of-catchment issues that do not stop at council boundaries. Alliance strategies are adjusted as the environment continues to change.



Contact

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