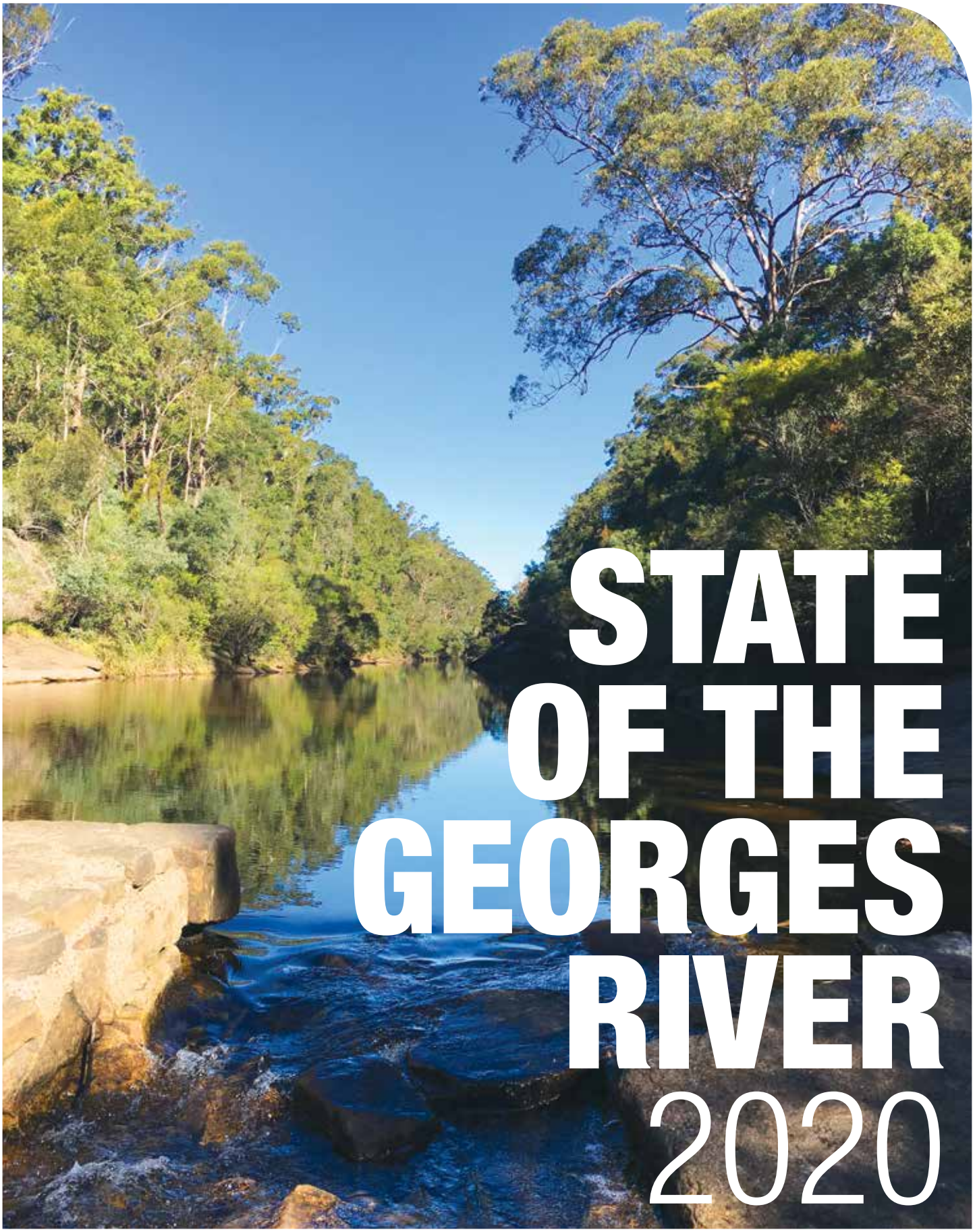
Georges Riverkeeper



STATE OF THE GEORGES RIVER 2020

The Georges River catchment stretches from Botany Bay on the east coast of New South Wales west towards Prospect Reservoir and south into bushland around Campbelltown and Appin. The northern and western parts of the Georges River catchment are dominated by the expanses of Sydney's urban sprawl, with natural areas and National Parks taking up much of the upper catchment to the south. The total length of the Georges River is around 100 km, with the tidal limit delineated by Liverpool Weir. The water is fresh above the weir and then increasingly saline as the river approaches Botany Bay.

WHAT IS THIS DOCUMENT ABOUT?

The State of the Georges River 2020 gives an overview of the ecological condition of the Georges River and details actions that are being taken to improve the 'state' or 'health' of the river.

It also tells the story of events that have impacted the river through history, highlights the need for continued waterway management in the face of ongoing challenges, and showcases projects that are being undertaken by Georges Riverkeeper and Councils to pursue improvements in the river's health.

WHAT IS THE STATE OF THE GEORGES RIVER?

Where the river flows through forested areas in the upper catchment, it is in very good health. In the middle, more populated and developed areas of the catchment, the health of the river is degraded by impacts of urbanisation, and in the lower estuarine catchment, the tidal influence has a positive impact on the health of the river.

The map of river health grades is on page 7 and 8.

WHAT DO THE GRADES MEAN?

RIVER HEALTH

River Health grades for the Georges River are determined using scientifically rigorous methods to measure the condition of riparian vegetation and channel structure, water quality and macroinvertebrate communities (i.e. waterbugs).

For 2019/20, as in past years, the grades reflect the ecological damage of urban creeks. This ecological degradation is consistent with the worldwide phenomena known as the 'Urban Stream Syndrome'.

The main cause of this syndrome is the much larger volumes of stormwater that are delivered from impervious urban landscapes than are delivered from forested landscapes, whilst sewage overflows and legacy pollutants also contribute. The Georges River catchment, with a population of close to 1.5 million people and extensive urban and industrial development, generates major stormwater inflows into urban creeks.

During rain events, these function not as creeks should, but as stormwater canals which rapidly transfer the pollutant loaded stormwater into the river. For the freshwater creeks, symptoms include altered channel morphology, highly eroded banks, widespread weeds, elevated waterborne pollutants (including litter), reduced native biodiversity and increased dominance of tolerant aquatic species, including non-natives.

Fortunately, ecological health has been maintained in the forested creeks in the upper Georges River catchment. Also, the water quality in the Georges River estuary (tidal areas) was good at most sites. This reflects that monitoring events in the estuary in 2019/20 did not coincide with large storms, during which poorer quality water enters the estuary.

COUNTERING RIVER DAMAGE

As the majority of the Georges River catchment consists of urban areas, the potential for degradation is high. Fortunately, environmental challenges in the catchment are being tackled by the community, government and a host of organisations. One such challenge is litter. As well as causing ecological damage and contributing to poor water quality, accumulated litter also limits the way people can use and enjoy the river. The most effective way to reduce litter from entering the environment is through stopping it at the source through programs that seek to reduce the amount of waste produced and ensure what is produced is disposed of appropriately. However, it is also important to address the litter that enters waterways.

The Georges Riverkeeper partnership with NSW Justice - Corrective Services has been operating for many years to remove litter from the environment. Since 2007, we have removed 1,300 tonnes from the catchment, that's equivalent in weight to over 43 hump back whales; we have removed 180 tonnes between 2018/19 to 2019/20.

Georges Riverkeeper acknowledges and thanks the groups and individuals who advocate for a cleaner river and remove rubbish from the catchment and waterways, including member Councils, Clean Up Australia Day participants, Ocean Crusaders, and environmental groups.

Bush regeneration goes hand-in-hand with litter removal for river rehabilitation. While it may not be realistic to return the Georges River to a pristine condition, Bushcare and bush regeneration are important to restore habitat and biodiversity in the catchment. Georges Riverkeeper has helped to rehabilitate 12.7 hectares between 2018/19 to 2019/20. There are currently approximately 103 Bushcare sites operating in the catchment and they always welcome new volunteers.

Ongoing management of stormwater flow and urban creeks is also vital to the health of the river. Some of the projects that have been undertaken by Georges Riverkeeper and Councils over the past two years to help rehabilitate the river and improve liveability in the catchment are profiled on page 9 and 10.

We encourage all 1.5 million people living in the Georges River catchment to enjoy the river, learn about the river and help the river. We need your help to keep making progress.

TIMELINE OF EVENTS IMPACTING WATER QUALITY

For more information about Aboriginal culture and the Georges River, visit: georgesriver.org.au/aboriginal-culture

Hand stencils photograph by Alan Fairley, Oatley Flora and Fauna Conservation Society Inc.

Liverpool Weir, 'Liverpool: dam and paper mills' from the State Library of NSW.

Georges River Oyster Farm of the Derwent and Drake Families, Neverfail Bay, Oatley NSW. Image courtesy of Georges River Libraries Local Studies Collection.

Pre-1770 — Aboriginal use of the region for millennia

1770 — First Fleet arrived in Botany Bay for settlement, but rejected it in favour of Sydney Harbour

1788 — Botany Bay surveyed by British explorers

1795 — Timber and lime from seashells harvested from local waterways

1800-1810 — Bass and Flinders surveyed Georges River

1804-1830s — Liverpool Weir built, using convict labour

1836 — Main land use changed from farming to grants to aristocrats for large country estates. In 1832, land grants were replaced by land purchase

1870s-1880s — Railways and tramways built and lower catchment transformed to mainly residential. After 1900, improved transport made beaches and public pools more popular than rivers for swimming

1880s-1890s — Proposals to dam Cooks River and Georges River for water supply abandoned

1886 — Commercially successful oyster cultivation established in the river

1910-1930s — Pollution overtook unsustainable harvesting as biggest threat to fishing industry and ecology of waterways

1927 — Construction of Woronora Dam begins, to capture water for supply to Sydney

1940s — Pollution shifted from mostly organic to inorganic pollutants, such as metals

1950s-1970s — Pollution from agricultural runoff, direct inflows of waste from riverside industry, and the open drains and pipes of emerging suburbs.

1962 — Middle reaches of Georges River closed for swimming

1970 — Large-scale sand mining in middle reaches, creating Chipping Norton Lakes. Reclamation of estuarine shorelines using garbage to build land above the high tide

1976 — West Cliff coal mine began operations in the upper Georges River catchment

1979 — NSW State Pollution Control Commission (SPCC) created, with direct regulatory power over industrial pollution in 1974. SPCC became NSW Environmental Protection Agency in 1992

1984 — Establishment of Georges Riverkeeper

1994 — Towra Point Ramsar site listed

From 1990s — Increased implementation of Water Sensitive Urban Design. Studies show stormwater responsible for most pollutants to the river. Licensed and unlicensed industrial discharge and sewerage continue to impact.

2003 — QX disease reaches the river and decimates cultivation of Sydney Rock Oysters

2010 — Georges Riverkeeper begins partnership with NSW Department Justice, Corrective Services

2014-2017 — Pacific Oyster Mortality Syndrome decimated cultivation of Pacific Oyster in Georges River

2014-2018 — Aboriginal Riverkeeper Team conservation and land management traineeships

2017 — Federal Government Green Army conservation program

NSW Government introduces Return and Earn scheme

Georges River, Como NSW, believed to be c. 1900. Image courtesy of Georges River Libraries Local Studies Collection.

Carss Park shark proof swimming area 1935. Image courtesy of Georges River Libraries Local Studies Collection.

Council sand pit at Chipping Norton, c.1968. HL000222-1. Liverpool Library Heritage Collection.

Return and Earn Container Deposit Scheme.

Timeline source: Reid D.J. (2020). A review of intensified land use effects on the ecosystems of Botany Bay and its rivers, Georges River and Cooks River, in southern Sydney, Australia. Regional Studies in Marine Science, volume 39, 101396.

For more information about the timeline of events impacting the Georges River, visit: georgesriver.org.au/timeline

ONGOING CHALLENGES FOR THE URBANISED GEORGES RIVER

DEFORESTATION AND HABITAT LOSS

Much of the Georges River catchment is highly urbanised, with the clearing of significant areas of native forest resulting in loss of habitats and reduced biodiversity. Cleared landscapes lack the ability to trap and filter pollutants before they flow into waterways. Large-scale sandmining and dredging have also dramatically altered the morphology of the Georges River.

HIGH STORMWATER FLOWS

Impervious urban surfaces prevent infiltration of water into the ground, as occurs in forested landscapes. Most runoff from storms in the catchment is directed into stormwater channels and urban creeks, then into the Georges River. The resulting high flows wash many pollutants into waterways, erode creeklines and flood low-lying areas.

POOR WATER QUALITY

Rainwater flowing across urban landscapes can pick up oils, detergents and tyre residue from roads; fertilisers, pesticides and lawn clippings from gardens; sediment from poorly maintained construction sites; litter; and other pollutants carelessly disposed of down outdoor drains. Most stormwater is not treated before entering the Georges River.

SEWAGE

Sewage leaks and overflows occur from broken pipes and blockages, and when high flows overwhelm the system during high rainfall. As well as smelling awful, sewage leaks have pathogens that are harmful to human health, and high nutrient concentrations that can result in fish kills.

LITTER

Litter is washed or blown into waterways, including creeks, rivers and the ocean. Much of the litter entering the Georges River that is plastic does not degrade, it just breaks up into small pieces that persist in the environment. Plastic litter reduces amenity, harms wildlife and can enter food webs.

EXOTIC SPECIES

Some introduced plants and animals thrive in highly altered urban landscapes, with highly diverse native ecosystems being replaced by a few hardy exotic species. In addition to the loss of native biodiversity, simplified ecosystems do not provide the same range of beneficial ecosystem services as more complex ecosystems.

CLIMATE CHANGE

Climate change is a global phenomenon with local consequences. Changing climatic conditions will require adjustments in our way of life and threaten many species' survival. Reduced rainfall, more intense storms, sea level rise and flooding will have significant impacts on property and life in the Georges River catchment.

HUMAN BEHAVIOUR

The Georges River catchment has approximately 1.5 million residents. Most people value maintaining clean and healthy waterways for their intrinsic natural values, beauty and amenity. However, a large urban population that feels increasingly disconnected from nature can lose sight of how their actions can affect river health.

For more information about the Georges River, see georgesriver.org.au/learn-about-the-river

RIVER HEALTH CONDITIONS

River Health grades are a useful way to communicate the condition of waterways and are now widely used across the world. The grades provide an easy to understand indication of the relative environmental health of waterways across the Georges River catchment. The grades are useful for highlighting the effects of surrounding land uses on waterways in the Georges River catchment.

Although it is within the Sydney metropolitan region, the river health remains 'Good' to 'Excellent' in the upper Georges River catchment and other freshwater subcatchments with minimal urban development. Those subcatchments include O'Hares Creek, Woronora River and Mill Creek.

The highly urbanised freshwater subcatchments include Bunbury Curran, Cabramatta and Prospect Creeks and most of the smaller creeks flowing directly to the estuary. The river health in those waterways is usually rated 'Fair' to 'Poor', which is reflective of degraded riparian vegetation (e.g. often only narrow strips of weedy vegetation along creeks), poor water quality and low diversity of macroinvertebrates.

Grades were mostly 'Good' to 'Excellent' within the Georges River estuary (from below Liverpool Weir to Botany Bay). This reflects that sampling did not directly follow major stormwater runoff events. Also, we have consistently found that during droughts and periods of low rainfall (as has been experienced in 2018-20) that water quality in the upper estuary is better than in wetter periods.

For further detail see the map on pages 7 and 8. For a summary of 2019/20 river health grades for the Georges River, visit: georgesriver.org.au/2020grades

HOW TO READ THE MAP

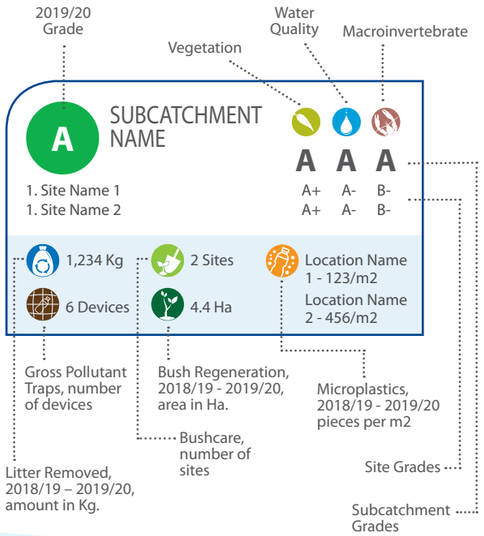
GRADING SYSTEM

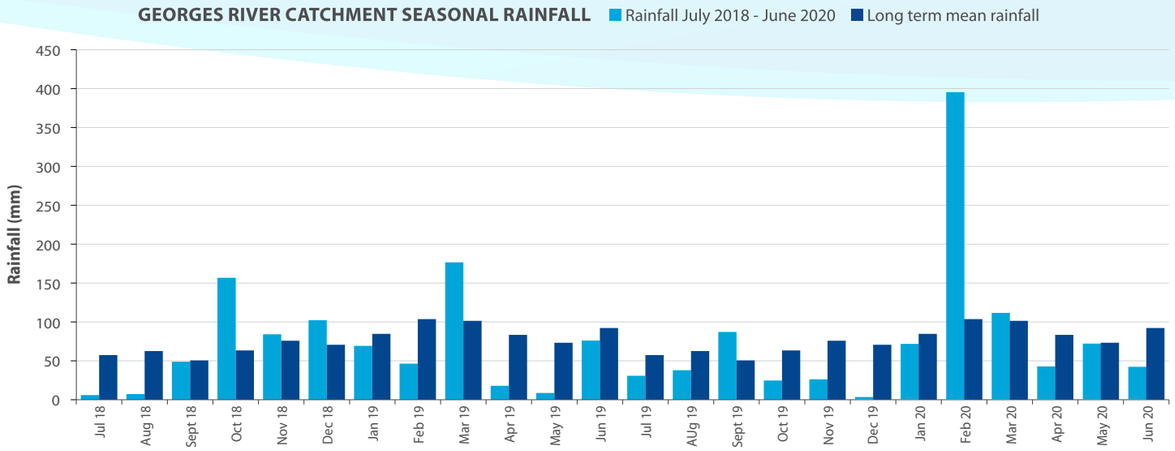
River Health indicators are assessed against environmental guidelines allowing the award of a grade between A+ and F-.

GRADE	CONDITION
A+	EXCELLENT
A - B+	GOOD
B - C-	FAIR
D+ - F-	POOR

INTERPRETING MAP ICONS

This diagram shows an example grading box.





INDICATORS EXPLAINED

RIPARIAN VEGETATION

Riparian vegetation are plants living along the edges of waterways. They contribute to maintaining the condition of waterways by stabilising banks with roots, dropping leaves and wood that act as important habitat for native animals, nutrient processing as they grow, regulation of temperature via canopy shade and filtration of pollutants that may otherwise enter waterways in overland flow.

WATER QUALITY

All aquatic plants and animals have specific water quality requirements. They will not survive in water where depleted amounts of desirable materials or elevated amounts of undesirable materials are outside of their tolerance limits. River Health monitors water quality indicators in the main channel, tributaries and estuary of the Georges River catchment throughout the year. Determining which water quality indicators are depleted and elevated at different locations provides valuable information about effects of other land uses on waterways across the Georges River catchment.

FRESHWATER MACROINVERTEBRATES

Macroinvertebrates are small animals without backbones, such as worms, snails and insects. They have diverse habits and life histories. Organisms that live in freshwater streams vary in their sensitivities to changes in water quality and habitat. River health surveys macroinvertebrates in spring and autumn. Determining which macroinvertebrates can and can't live at particular locations provides valuable information about freshwater health across the Georges River catchment.

LITTER REMOVED

Georges Riverkeeper has a long term relationship with NSW Justice - Corrective Services with Teams conducting rubbish and litter removal at over 214 sites across the catchment. Riverkeeper Teams target litter aggregation hot spots and exposed areas where littering is a problem. Aggregation hot spots include mangrove forests, saltmarsh and reed beds all of which are important ecological communities vital to the ecosystem functions of a healthy river. The quantity of litter removed over the past two years is presented on the map over the page. The works being conducted to keep the river clean not only benefit the environment and public amenity but provide meaningful activities for offender rehabilitation.

BUSH REGENERATION

Georges Riverkeeper has implemented a number of projects to improve the condition of remnant bushland throughout the catchment. Projects have focused on regenerating riparian lands along the river and its tributaries. Major projects over the past two years have included regeneration projects at Oyster Creek Gully and Simmos Beach, and saltmarsh revegetation. Georges Riverkeeper has also piloted a program with NSW Justice - Corrective Services and Fairfield City Council where Corrective Service offenders conduct bush regeneration in the Fairfield Local Government Area. These projects complement extensive member Council bush regeneration programs and other organisations' activities that are helping to improve urban bushland and the river. The area regenerated by Georges Riverkeeper programs is reported for each subcatchment.

BUSHCARE SITES

Threats including weed invasion diminish the quality of remnant bushland in our urban areas. This, in turn, reduces the vital ecosystem service functions that bushlands perform including: maintaining biodiversity, soil formation and retention, pollination, provision of wildlife habitat, carbon sequestration and public amenity. Bushcare volunteers play a vital role in helping to manage urban bushland. Their efforts rehabilitating and regenerating natural areas ensures that urban bushland can be enjoyed by future generations. The number of Bushcare sites is reported for each subcatchment.

GROSS POLLUTANT TRAPS (GPT)

Gross pollutants generally consist of litter, debris and coarse sediments. When these gross pollutants, in particular litter, enter waterways, they reduce the recreational amenity and aesthetic value of the environment, reducing public enjoyment and liveability while increasing negative environmental impacts. Gross Pollutant Traps (GPTs) capture and remove large particles in waterways before they further impact the environment. The number of GPTs managed by Councils is reported for each sub-catchment.

MICROPLASTICS

Microplastics are small particles of plastic, often formed from the breakup of larger plastic pieces. They are a problem for the environment as they persist for a long time, can harbour toxic chemicals and are easily ingested by wildlife. Georges Riverkeeper has documented microplastic contamination at a number of sites throughout the estuary using AUSMAP methods (see www.ausmap.org). These figures represent the average results of microplastic surveys conducted in 2018, 2019 and 2020.

GEORGES RIVER ECOLOGICAL HEALTH

B- OVERALL FRESHWATER GRADE

A OVERALL ESTUARY GRADE

D+ PROSPECT CREEK

	C-	D+	D-
1. Orphan School Creek Upper	C	D	F+
2. Orphan School Creek Lower	C	C-	C
3. Prospect Creek Upper	C	D+	F
4. Prospect Creek Lower	D	D	C+

27,362 Kg · 5 Sites · n/a · 53 Devices · 0.427 Ha

D MID ESTUARY CREEK

	E	D+	D+
1. Little Salt Pan Creek	E	D+	D+

16,455 Kg · 7 Sites · Kelso Beach: 104 /m2 · 32 Devices · 0.4 Ha · Mickeys Beach: 92 /m2

SALT PAN CREEK

10,234 Kg · 5 Sites · n/a · 23 Devices · n/a

D+ LOWER ESTUARY CREEKS

	C+	B	D+
1. Dairy Creek	D	B-	E
2. Myles Dunphy Reserve Creek	A	B-	E+
3. Poulton Creek	F	C+	F+
4. Carina Creek	C-	A-	D+

15,223 Kg · 31 Sites · Taren Point: 161/m2 · 140 Devices · 7.575 Ha · Towra Point: 398/m2

UPPER ESTUARY

25,290 Kg · 2 Sites · Cutler Beach: 1051/m2 · 32 Devices · 0.125 Ha

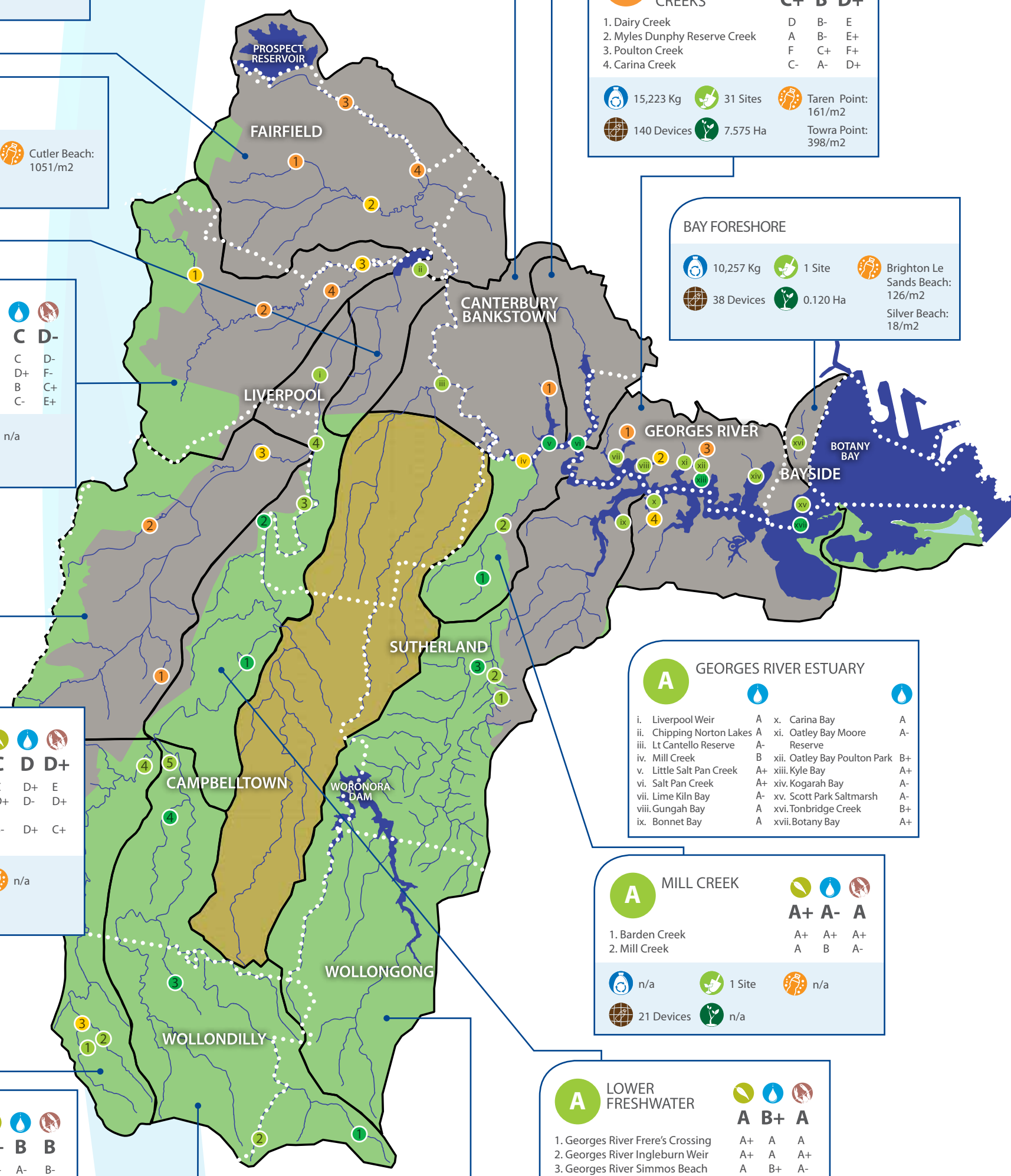
BAY FORESHORE

10,257 Kg · 1 Site · Brighton Le Sands Beach: 126/m2 · 38 Devices · 0.120 Ha · Silver Beach: 18/m2

C- CABRAMATTA CREEK

	C	C	D-
1. Hinchinbrook Creek	A-	C	D-
2. Cabramatta Creek Upper	B+	D+	F-
3. Cabramatta Creek Lower	D+	B	C+
4. Brickmakers Creek	E	C-	E+

22,770 Kg · 4 sites · n/a · 131 Devices · n/a



D+ BUNBURY CURRAN CREEK

	C	D	D+
1. Smiths Creek	C	D+	E
2. Bunbury Curran Creek Kooringa Reserve	D+	D-	D+
3. Bunbury Curran Creek Harold Bridge	B-	D+	C+

29,284 Kg · 3 Sites · n/a · 43 Devices · n/a

A GEORGES RIVER ESTUARY

i. Liverpool Weir	A	x. Carina Bay	A
ii. Chipping Norton Lakes	A	xi. Oatley Bay Moore Reserve	A-
iii. Lt Cantello Reserve	A-	xii. Oatley Bay Poulton Park	B+
iv. Mill Creek	B	xiii. Kyle Bay	A+
v. Little Salt Pan Creek	A+	xiv. Kogarah Bay	A-
vi. Salt Pan Creek	A+	xv. Scott Park Saltmarsh	A-
vii. Lime Kiln Bay	A-	xvi. Tonbridge Creek	B+
viii. Gungah Bay	A	xvii. Botany Bay	A+
ix. Bonnet Bay	A		

A MILL CREEK

	A+	A-	A
1. Barden Creek	A+	A+	A+
2. Mill Creek	A	B	A-

n/a · 1 Site · n/a · 21 Devices · n/a

B+ UPPER FRESHWATER

	A+	B	B
1. Georges River Upper	A+	A-	B-
2. Brennans Creek	A+	B-	B+
3. Georges River Kennedy Grove	A+	C-	B-
4. Georges River Woolwash	A+	A-	B+

7,322 Kg · 1 Site · n/a · 4 Devices · 4.4 Ha

A+ O'HARES CREEK

	A+	A+	A-
1. Maddens Creek	A+	A+	A+
2. Illuka Creek	A+	A+	C-
3. Cobbong Creek	A+	A+	A+
4. Stokes Creek	A+	A+	A+
5. O'Hares Creek Woolwash	A+	A-	A-

A LOWER FRESHWATER

	A	B+	A
1. Georges River Frere's Crossing	A+	A	A
2. Georges River Ingleburn Weir	A+	A	A+
3. Georges River Simmos Beach	A	B+	A-
4. Georges River Cambridge Ave	A-	C+	A

15,470 Kg · 3 Sites · Simmos Beach: 4/m2 · 26 Devices · n/a

A+ WORONORA RIVER

	A+	A	B+
1. Bottle Creek	A+	B+	B+
2. Woronora River	A+	A+	C+
3. Heathcote Creek	A+	A+	A+

n/a · 38 Sites · n/a · 46 Devices · n/a

MAP KEY

- Urban
- Forest
- Restricted Access
- Waterways
- Subcatchment Boundaries
- Council Boundaries

FOR INSTRUCTIONS ON HOW TO READ THIS MAP, SEE PAGE 5.

THE GEORGES RIVER IS IN SOUTHERN SYDNEY

PROJECTS THAT ARE IMPROVING RIVER HEALTH

GEORGES RIVERKEEPER PROJECTS

SPOROBOLUS PLANTING

In 2019 Georges Riverkeeper and Conservation Australia Volunteers delivered a project to help revegetate saltmarsh in the Georges River. The project, assisted with funding by NSW DPI Fisheries' Recreational Fishing Trust's "Habitat Action Grant Program" saw the installation of 9,000 *Sporobolus virginicus* seedlings at six sites. The project has the potential to boost fish productivity in the Georges River as *Sporobolus virginicus* has been found to provide the greatest contribution to the diet of key fish species.
https://georgesriver.org.au/learn-about-the-river/targeted-improvement-the-georges-river-estuarine-food-web

OYSTER CREEK GULLY

This joint project with Sutherland Shire Council funded through the NSW Environmental Trust Restoration and Rehabilitation grants program is regenerating 7.35 hectares of remnant bushland. The riparian corridor has been degraded by high flow stormwater, increased nutrients and contaminants, weed populations and decreased native biodiversity. To combat these effects, on-ground works have included control of invasive weeds and revegetation which has been assisting natural regeneration.
https://georgesriver.org.org.au/learn-about-the-river/rehabilitation-the-oyster-creek-gully-habitat-corridor

SIMMOS BEACH

Partnering with Campbelltown City Council, this project funded through the NSW Environmental Trust Restoration and Rehabilitation grants program, has improved environmental assets within the Simmos Beach catchment. This area is home to threatened flora and fauna, including koalas, and features a heavily weed infested creek line. In-stream sediment build up and weed infestations have been removed along the 4.14 hectare riparian corridor. Natural regeneration and assisted plantings are contributing to the regeneration of the Simmos Beach catchment area.
https://georgesriver.org.au/learn-about-the-river/simmos-beach-restoration-grant

MEMBER COUNCIL PROJECTS

WATER MANAGEMENT STRATEGY

Bayside Council has adopted a Water Management Strategy to drive water management over the next 10 years. This plan will guide Council towards its vision: *Bayside's waterways and foreshores are healthy, its water management systems and infrastructure are smart and resilient, and the community is actively engaged in water management.*
www.bayside.nsw.gov.au

LOWER GANNONS PARK

Georges River Council's large-scale landscape and stormwater naturalisation project within Lower Gannons Park is a great win for the community and the environment. Boggywell Creek now flows through constructed wetlands, swales and bioretention systems, which treat and remove pollutants before entering the river. The project was partly funded by state and federal government grants and a significant contribution by council.
www.georgesriver.nsw.gov.au

MEMBER COUNCIL PROJECTS (CONT.)

LAKE GILLAWARNA

Lake Gillawarna bordering Prospect Creek has been affected negatively by its urban catchment. City of Canterbury Bankstown has improved the condition of this wetland area through installing native plants, increasing wetland vegetation and improving the edge of the waterways. These changes will improve water quality by reducing the sediment levels, reducing the impacts of excessive nutrients as well as improving the dissolved oxygen levels by improved circulation of water over shallow wetland areas.
www.cbcity.nsw.gov.au

GREEN VALLEY CREEK

This joint project with Fairfield City Council, funded by the NSW Government through the Environmental Trust Restoration and Rehabilitation grants program, is rehabilitating 5 hectares of the upper reaches of Green Valley Creek that have been impacted by urban development. With funding assistance from a NSW Environmental Trusts' Restoration and Rehabilitation grant, weeds have been treated, erosion prone banks stabilised and 35,000 native plants have been installed, increasing the width of this important riparian corridor.
www.fairfieldcity.nsw.gov.au

AMALFI PARK

Liverpool City Council has developed and implemented integrated water management initiatives to improve water quality throughout the Local Government Area. The recent $4.7M Amalfi Park project, partly funded by the OEH State Floodplain Management Program, was awarded an Excellence in Environmental Award for the trash racks, flood detention basin, boardwalk and wetlands that now assist in improving water quality and flood conveyance in Brickmakers Creek.
www.liverpool.nsw.gov.au

PLATYPUS PALS

As part of Campbelltown City Council's Platypus Pals citizen science program, water samples will be collected from sites along the Georges River and its key tributaries to test for the presence and strength of platypus DNA. With funding support from The Australian Government and Oz Fish this project will shed light on the distribution of platypus for further surveys, and help Council and the community to ensure platypus are helped to thrive.
www.campbelltown.nsw.gov.au

WOOLOOWARE BAY SHARED PATHWAY

Sutherland Shire Council's multifaceted Woolooware Bay Shared Pathway has increased shorebird habitat in the bay. The project jointly funded by the NSW Government has seen an artificial shorebird island installed and a heritage-listed wharf restored. These features can be viewed from the new boardwalk and viewing platform. Other environmental benefits of the project include treatment of contaminated land, installation of environmentally-friendly seawalls and saltmarsh plantings.
www.sutherlandshire.nsw.gov.au

INTEGRATED WATER MANAGEMENT POLICY

Wollondilly Shire Council's Integrated Water Management Policy and Strategy aims to drive smarter water management outcomes in the area, focusing on protecting the health of the aquatic ecosystems and increasing biodiversity, recreation, liveability, climate resilience and flood management, and promoting water conservation and reuse.
www.wollondilly.nsw.gov.au

HOW CAN I HELP THE RIVER?

Visit and enjoy the river.

Get involved in local groups such as Bushcare.

Place litter in bins as rain carries litter pollution to the river.

Plant native plants, install a rainwater tank or build a raingarden at your house.

Use Council Chemical CleanUps to dispose of unwanted paints, chemicals and solvents.

Report river pollution to the Environment Protection Authority.
CALL 131 555

Georges Riverkeeper

Georges Riverkeeper acknowledges the Traditional Owners and Custodians of the Georges River, the Kamegal, Bedigal, Cabrogal, Cannemegal, Gweagal and Norongerral people of the Eora, Dharug and Dharawal nations and we pay our respects to their Elders past, present and emerging.

Georges Riverkeeper represents member Councils in the Georges River catchment of southern Sydney, NSW, including Bayside Council, Campbelltown City Council, City of Canterbury Bankstown, Fairfield City Council, Georges River Council, Liverpool City Council, Sutherland Shire Council and Wollondilly Shire Council.

Georges Riverkeeper have undertaken River Health monitoring since 2009 and reported litter collection on Riverkeeper Report Cards since 2014.

For a PDF of this report, as well as previous River Health Report Cards, visit www.georgesriver.org.au

CONNECT WITH US

Georgesriver.org.au

contact@georgesriver.org.au

georgesriverkeeper

GeorgesRiverkeeper

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MEMEBER COUNCILS

Bayside Council
Serving Our Community

CAMPBELLTOWN

CANTERBURY BANKSTOWN

FairfieldCity
Celebrating diversity

GEORGES RIVER COUNCIL

LIVERPOOL CITY COUNCIL

SUTHERLAND SHIRE COUNCIL

Wollondilly
Shire Council

PARTNERS

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NSW GOVERNMENT | Justice
Corrective Services