



Waterways Local Update 2017-18

Melbourne Water's work to enhance waterways and build resilience to flooding in the City of Casey.



5160 m³
SEDIMENT, SILT, LITTER
AND DEBRIS REMOVED
FROM WATERWAYS



417
FLOOD INFORMATION
REQUESTS REVIEWED



\$222,633
IN COMMUNITY
FUNDING

Melbourne Water plays an active role in the daily lives of Melburnians. We contribute to Melbourne's famous lifestyle by protecting and enhancing over 25,000 km of rivers and creeks, and more than 479 stormwater treatment systems and wetlands in the Port Phillip and Westernport region.

The Waterways and Drainage Charge, which is paid by property owners and collected by retail water companies on our behalf, funds this work. It is an important part of ensuring a thriving natural environment.

Melbourne Water cares for many waterways. Some in your local area include:

- Cardinia Creek
- Hampton Park Wetlands
- Berwick Springs Wetlands
- Eumemmerring Creek
- Troups Creek
- Dandenong Creek

Healthy waterways

Maintenance and new projects

We are the caretakers of waterway health in the Port Phillip and Westernport region. Each year, we create and maintain healthy waterways by removing litter, debris and excess sediment. We remove and spray weeds, cut grass and plant native trees and shrubs.

What we have done

Why

6.4 km Revegetation

We plant native trees and shrubs along waterways to provide habitat for birds and animals. Revegetating waterways and replacing weeds with native plants prevents erosion and improves water quality.

22.7 km Weed control

Introduced and noxious weeds can choke waterways and take over from plants that provide healthy habitats for birds and animals.

5160 m³ Sediment, silt, litter, debris removal

Silt, sediment, litter and debris is removed for drainage and flood protection, and to prevent pollution building up in our waterways and wetlands. An excess of these can impact the habitat for platypus, fish and other animals, as well as native plants.

Constructed erosion control structures at Heath Hill and Yannathan along Lang Lang River

These structures aim to control bed erosion on the Lang Lang River by stopping erosion moving upstream and causing further deepening of the river channel.

Carried out works to control weeds, e.g. blackberry, and plant native grasses, shrubs and trees along Eumemmering Creek

The work improves vegetation along Eumemmering Creek, provides habitat for birds and animals, prevents erosion and improves water quality.

Stormwater

Rainwater, stormwater and recycled water are valuable resources. We work closely with Council and local communities to protect our rivers, creeks and bays, provide alternative water sources and improve the stormwater that flows into local waterways by integrating stormwater into the urban landscape.

What we have done

Why

Living Rivers provided funding for the design and construction of swales and bioretention systems along the green link as identified in the Metropolitan Activity Centre Structure Plan

These water sensitive urban design elements improve stormwater quality, reduce stormwater quantity and the risk of flooding, enhance waterway and bay health, create awareness of the importance and benefit of integrated water and offer alternative drinking water supplies.

Living Rivers provided funding to design community raingardens and tree pits for Tooradin Village streetscape and foreshore

This work improves stormwater quality entering Sawtell's Inlet and Westernport, reduces stormwater quantity and flooding risk, enhances waterway and bay health, provides passive landscape irrigation and green open space, and increases awareness of water sensitive urban design.

Living Rivers provided funding for holistic water management as part of the new local Environmental Sustainable Design policy, and water sensitive urban design practices through a collaboration with Moreland, Moonee Valley, Melbourne, Yarra, Brimbank and Greater Geelong councils

Greater understanding of best practice stormwater management and sharing information across the region improves waterway health, amenity and liveability, and reduces the risk of flooding, and stormwater and pollution entering waterways and bays.

Through the Clearwater program, we supported Council to take a whole-of-water cycle approach by providing a wide range of tools and resources, and opportunities to participate in a variety of activities

This work helps to improve skills, increase knowledge and foster better networks across councils to change the way we manage water for healthy, connected communities.



The Living Rivers program offers councils funding, expertise and guidance to build their understanding, skills and commitment to manage stormwater within an integrated water management approach. We contributed \$130,980 to projects in your area.

Find out more at melbournewater.com.au/livingrivers

Environmental water

Working with government agencies, councils, industries, landowners and the community ensures we provide the allocated water needed in rivers to maintain healthy natural ecosystems.

What we have done

Worked with Southern Rural Water to monitor groundwater and surface water levels

Worked with the Department of Environment, Land, Water and Planning, and Southern Rural Water on environmental outcomes for river systems in Integrated Water Management forums

Why

Helps to understand the role that groundwater is playing in Westernport.

Advocating for environmental outcomes for river systems and tributaries improves the health of waterways.

Monitoring and research

We improve local waterways by undertaking regular and extensive monitoring, investigations and research to better understand them.

What we have done

Monthly monitoring of water quality at two sites within your area. These tests measure:

- water temperature
- dissolved oxygen
- salinity (conductivity)
- pH level
- nutrients (nitrate, nitrite, ammonia, Kjeldahl nitrogen, soluble reactive phosphorus and total phosphorus)
- indicators of faecal contamination (*E. coli*)
- metals (arsenic, cadmium, chromium, copper, lead, nickel and zinc)

Fortnightly blue-green algae monitoring at three sites in your area during the summer period

Monitored sediment along the Lynbrook Estate Wetland

Why

Our water quality monitoring program is designed to assess broad-scale, long-term trends in water quality (typically over 8 - 10 years). We use this data to help identify pollution sources and inform the community about local water quality.

We monitor for blue-green algae because it can be a health risk to people and animals. If blue-green algae is detected, we follow state government guidance, erect warning signs, inform the public and continue to monitor the water until it clears.

This monitoring improves our knowledge of contaminants and guides our management of the waterways.

Planning for future development

We ensure local waterways aren't threatened by growing communities and that new developments do not increase flood risk through planning, and by providing advice to assist future development.

What we have done

Why

191 referrals for land subdivisions reviewed

Ensure proposed land subdivisions meet current standards for drainage and stormwater quality.

153 development applications reviewed

Ensure that growing communities don't contribute to an increase in flood risk.

417 flood information requests reviewed

Provide flood information to property owners and people interested in purchasing or redeveloping property.

14 applications for works near Melbourne Water assets and works such as bridges, shared pathways and jetties reviewed

Ensure waterways, and the plants and animals that live there, are protected from the potential impacts of building works.

9 stormwater connection applications reviewed

Ensure waterways and the plants and animals that live there, are protected from the potential impacts of construction works.

Flood protection

While floods are natural and we can't stop them all from occurring, we can build our resilience to them and minimise the damage they cause to people, places and communities.

We manage the regional drainage system and work with Council, the Victorian State Emergency Service, the Bureau of Meteorology, property owners and developers to make sure flood information is up to date. We provide flood warning services, prepare flood response plans, and identify and construct new flood protection projects in areas with the greatest need.

What we have done

Why

Worked collaboratively to develop flood information throughout the municipality over a three-year period

The up-to-date flood information assists with appropriate planning and development controls.

Continued collecting hydrological data

Data is used to analyse flood warning during emergency situations, as well as for such things as development referrals and projects to reduce the risk of flood.





13 volunteers in your area provide us with rainfall data by recording information from a rain gauge in their backyard. These figures and the data from our automated gauges provides us with valuable rainfall information.

Find out more at melbournewater.com.au/communityrainreaders

Working with the community

Working collaboratively with community groups, volunteers, land managers and farmers allows for better management of local waterways, natural environments and regional drainage systems. It protects the environment and promotes conservation. If you'd like more information about funding opportunities, please call **131 722** or email river.health@melbournewater.com.au

Funding provided	Grant	For
\$18,913	Stream Frontage Management	Private land owners and managers for works that protect or enhance riverbanks, such as weed control, fencing and planting native trees.
\$56,240	Community Grants	Volunteer and community groups for works that protect or enhance riverbanks on public land, raise awareness, and provide training and education to protect local waterways.
\$16,500	Corridors of Green	Councils and public land managers for projects such as weed control, fencing and creating management plans.

We also worked with the local community on several events and initiatives throughout the year.

Who we worked with

What we did

Cardi Creek Kids Cardinia Creek Landcare

Conducted Frog Census training to monitor realignment works on Grasmere Creek.

Royal Botanic Gardens Cranbourne

Provided support to monitor water quality through our Waterwatch program.

Harkaway Primary School

Supported teachers to participate in the River Detectives program, with the loan of a water quality kit and training to enable them to take students to test water quality and monitor macroinvertebrates in Cardinia Creek and Grassmere Creek.

Lynbrook Primary School

Initiated a community-based litter action project to stop key litter items at the source, with monthly litter audits alongside the school at Banjo Patterson Reserve.

City of Casey

Established a joint ongoing litter prevention program to collect litter from Ogradys Road drain and provide signage for the public on the protection of Dwarf Galaxias.

Held a Casey Frog Census information night.



Our Space Your Place is an app that helps you find land managed by Melbourne Water to use for projects that benefit the wider community, such as community gardens. We encourage communities to apply to use the land. Find out more at

melbournewater.com.au/ourspaceyourplace or call 131 722.



Our citizen science programs harness the power of community through Waterwatch programs. They support people to collect and analyse data on platypus, frogs, waterbugs and water quality in their local river or creeks and advocate for waterways to help protect them and promote conservation.

Find out more at melbournewater.com.au/waterwatch or call 131 722.