



# Waterways Local Update 2017-18

Melbourne Water's work to enhance waterways and build resilience to flooding in the **Shire of Yarra Ranges**.



**\$1.1 M**  
IN COMMUNITY  
FUNDING



**PLATYPUS**  
SURVEYS, EDUCATION AND  
HABITAT IMPROVEMENT



**10.8 KM**  
REVEGETATION  
ALONG WATERWAYS

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:

- Yarra River
- Monbulk Creek
- Olinda Creek
- Ferny Creek
- Woori Yallock Creek
- Stringybark Creek

# Healthy waterways

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## 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

**10.8 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.

**459.5 km** Weed control

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

**368.8 m<sup>3</sup>** Sediment, silt, litter, debris removal

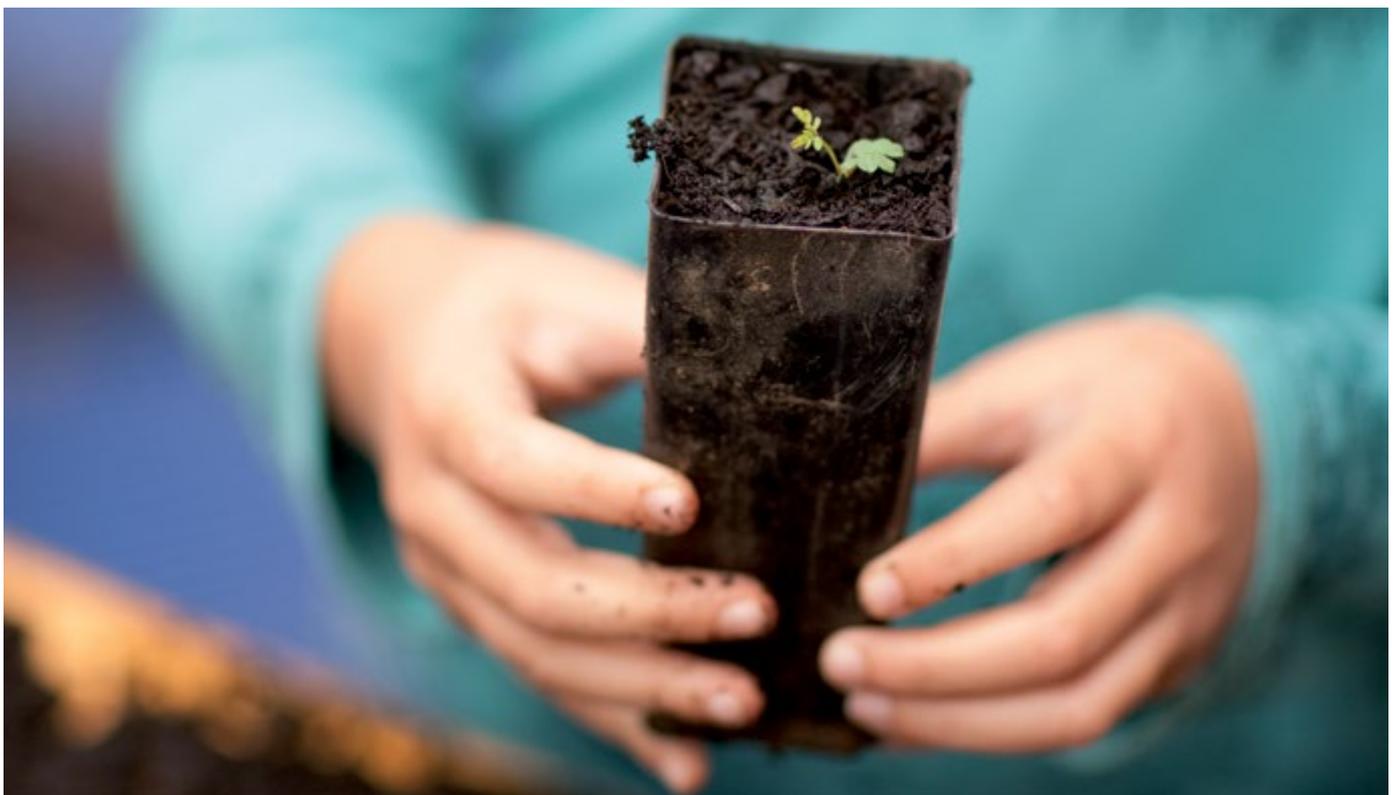
Silt, sediment, litter and debris is removed for drainage and flood protection, and to prevent pollution building up in our waterways and wetlands. An excess of these can impact the habitat for platypus, fish and other animals, as well as native plants.

**Worked to re-engage an old channel in the Yarra River for better fish passage**

The work allows fish to migrate around the historic Little and Big Peninsula tunnels and increases habitat for native fish and macro-invertebrates.

**Worked with Parks Victoria, the University of Melbourne, Friends of Helmeted Honeyeater, the Department of Environment, Land, Water and Planning (DELWP) and Zoos Victoria to remove levees and use pumps to reconnect river water with the natural swamp**

Improving the condition of Cockatoo Swamp as part of the Cockatoo Swamp Hydrology Improvement project will improve vegetation and habitat for floodplain animals, specifically the critically endangered Helmeted Honeyeater and Leadbeater's Possum.



## 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

**Living Rivers provided funding to research the most suitable Water Sensitive Urban Design (WSUD) tree pits for Yarra Ranges**

**Living Rivers contributed funding to the construction of a section of new Council building, to include rainwater tanks plumbed to internal toilets and treating runoff from new car parks**

**Living Rivers contributed funding to employ a WSUD officer to continue embedding and implementing WSUD principles and design within Council**

**Living Rivers provided funding to develop concept designs to intercept and treat stormwater runoff in the Monbulk Creek catchment**

**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**

### Why

Research will enhance relationships with Council and the University of Melbourne by developing a working group and building on existing research of tree pit performance.

Incorporating environmentally sustainable design elements will improve the efficiency of the new building, reduce stormwater runoff to nearby Olinda Creek and help create community awareness of WSUD that reduces the impacts of urban stormwater runoff on waterways.

The WSUD officer will help improve WSUD assets to better perform and be better maintained, and deliver high quality WSUD in the Yarra Ranges.

Improving stormwater quality and reducing stormwater quantity enhances the health of Monbulk Creek.

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 \$134,870 to projects in your area.

Find out more at [melbournewater.com.au/livingrivers](http://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

### Why

**Worked with the Victorian Environmental Water Holder to deliver three environmental flows to the Yarra River**

Releasing water from upstream storages mimics flows that would naturally occur if the river wasn't dammed. This improves water quality and habitat for native wildlife.

**Worked with Council and land holders that access water in Olinda Creek to develop a Streamflow Management Plan**

The plan will help land holders balance water use between the environment and water licence holders.

**Worked with Parks Victoria to monitor groundwater and surface water levels in Yellingbo Nature Conservation Reserve**

Monitoring will help understand the role that groundwater plays in wetland ecosystems.

**Reviewed Stream Flow Management Plan for Woori Yallock and Little Yarra rivers**

Reviewing the plan for its effectiveness will help make improvements to ensure the health of waterways.

**Worked with DELWP, Western Water and Southern Rural Water on environmental outcomes for the Yarra River**

Advocating for environmental outcomes for the river and its tributaries in Integrated Water Management forums improves the health of waterways.

**Installed a network of observation bores in closed catchments**

The observation bores will monitor long term variability in climate conditions.

**Engaged landholders through the Mitigating Catchment Impacts program to identify opportunities to undertake whole farm plans**

Undertaking farm plans enables landholders to access grants to implement water savings and improve stream low flow conditions.

**Undertook biological (macroinvertebrate and fish) monitoring in several catchments**

Monitoring will assist in Stream Flow Management Plan effectiveness.



## Monitoring and research

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

### What we have done

### Why

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#### Monthly monitoring of water quality at 23 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)

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.

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#### Weekly monitoring at two sites to better understand recreational health risks during the summer period

We use this data to identify any pollution sources and provide information to the community.

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#### Annual platypus surveys in Chum Creek, McMahons Creek, Sassafras Creek and Woori Yallock Creek

Improved knowledge of platypus population health and distribution allows us to nurture this important species.

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#### Undertook fish surveys along Log Creek

The surveys helped evaluate the benefits of a new vertical-slot fishway installed at Dights Falls and complements another fishway monitoring program undertaken by the Arthur Rylah Institute.

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#### Macroinvertebrate surveys in the Upper Yarra Reservoir

These surveys improve our knowledge of the condition of waterways and how they change.

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#### Monitored sediment along Olinda Creek and Platypus Wetlands

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

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## Planning for future development

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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

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**60** referrals for land subdivisions reviewed

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

**134** development applications reviewed

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

**141** flood information requests reviewed

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

**10** 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.

**13** stormwater connection applications reviewed

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

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## Flood protection

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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

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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.

Prepared for a planning amendment

Reviewed flood information for the municipality to provide up-to-date data to support planning applications and appropriate development.

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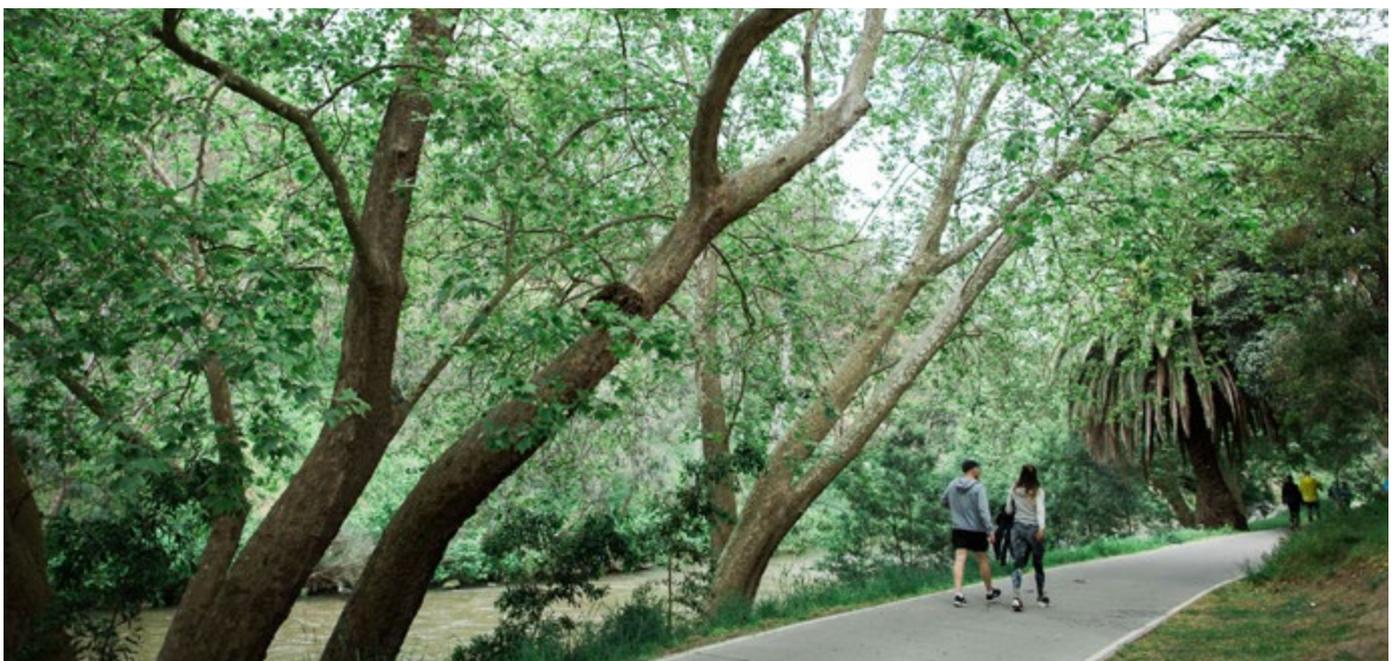
22 volunteers in your area provide us with rainfall data by recording information from a rain gauge in their backyard. These figures and the data from our automated gauges provides us with valuable rainfall information.

Find out more at [melbournewater.com.au/communityrainreaders](http://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](mailto:river.health@melbournewater.com.au)

Funding provided	Grant	For
<b>\$517,034</b>	<b>Stream Frontage Management</b>	Private land owners and managers for works that protect or enhance riverbanks, such as weed control, fencing and planting native trees.
<b>\$162,780</b>	<b>Community Grants</b>	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.
<b>\$158,400</b>	<b>Corridors of Green</b>	Councils and public land managers for projects such as weed control, fencing and creating management plans.
<b>\$127,312</b>	<b>Rural Land Program</b>	Landholders in specific catchments for projects that reduce the amount of sediment and nutrients entering waterways from agricultural land.



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

## Who we worked with

## What we did

<p><b>Friends of Sassafras Creek Butterfield Reserve</b></p>	<p>Provided support for monitoring water quality and macroinvertebrates for the Waterbug Census.</p>
<p><b>Belgrave Platypus Selby Kindergarten Selby Scouts and Belgrave Platypus</b></p>	<p>Conducted citizen science and platypus education sessions.</p>
<p><b>Belgrave Platypus</b></p>	<p>Supported the group to provide information on platypus to residents.</p>
<p><b>Healesville Environment Watch Inc Mt Toolebewong and District Landcare</b></p>	<p>Provided support to monitor water quality through our Waterwatch program.</p>
<p><b>Southern Dandenongs Landcare</b></p>	<p>Provided and managed a platypus information stall at the Platypus Festival.</p>
<p><b>Greening Australia Woori Yallock Farm School Friends of The Helmeted Honeyeater Parks Victoria</b></p>	<p>Conducted frog census monitoring and training for Yellingbo billabong restoration.</p>
<p><b>Waterbug Census community volunteers</b></p>	<p>Conducted Waterbug Census monitoring and collected data on the Yarra River in Warburton with community volunteers.</p>
<p><b>Mount Lilydale Mercy College Environmental Education For Kids (EEK!)</b></p>	<p>Supported educators to participate in the River Detectives program for a second year, with the loan of a water quality kit and training to enable them to take students to test water quality and monitor macroinvertebrates in their local waterways.</p>
<p><b>Yarra Ranges, Nilumbik, Manningham, Boroondara, Stonnington, Melbourne, Yarra and Banyule councils Parks Victoria Canoe Victoria Community</b></p>	<p>Through extensive engagement as part of the Yarra Recreational Paddling Investigation, developed a 5-year implementation plan to improve recreational paddling e.g. canoe/kayak, encourage more passive recreational users of the Yarra River and provide safer infrastructure that is sensitive to river environments.</p>
<p><b>Community, Wurundjeri Council, Parks Victoria, Transport for Victoria, Port Phillip and Westernport Catchment Management Authority, Department of Environment, Land, Water and Planning, VicRoads, Victorian Planning Authority, Banyule, Boroondara, Manningham, Melbourne, Nillumbik, Stonnington, Yarra Ranges and Yarra councils</b></p>	<p>Developed and launched the Yarra River 50 Year Community Vision for the Yarra Strategic Plan, providing the basis for future planning and management of the river corridor. More than 2000 people provided input into the vision through an engagement process designed to capture what people value about the Yarra River. The Yarra Strategic Plan will be released in 2019 and will help ensure the protection and improvement of the Yarra for future generations.</p>
<p><b>Billanook College</b></p>	<p>Engaged VCE and Environmental Club students with weeding and revegetation in the Cardigan Road Retarding Basin, an important biodiversity site adjacent to the college.</p>

## Who we worked with

**Mt Evelyn Environmental Protection and Progress Association (MEEPPA)**

**Mt Evelyn Football and Netball clubs**

**Friends of the Mt Evelyn Aqueduct**

**Mt Evelyn Recreation Camp**

**Shire of Yarra Ranges**

**Council**

**Yarra Valley Landcare Network**

**Port Philip and Westernport Catchment Management Authority**

## What we did

Began work to balance the needs of reserve users, community and the environment along Olinda Creek with the recent update to the Mt Evelyn Recreation Reserve masterplan. The reserve is home to platypus, Powerful Owls and other significant plants and animals.

Through the Rural Land Program, co-sponsored a Managing Your Rural Property conference where 120 participants who own small farms heard speakers on such topics as farm planning, biodiversity, grazing management and water supply, as well as Don Watson, author of 'The Bush'.



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](http://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](http://melbournewater.com.au/waterwatch) or call 131 722.