

# The 'Big Wet' continues

## Water for the environment snapshot 2023-24



### What is Water for the environment?

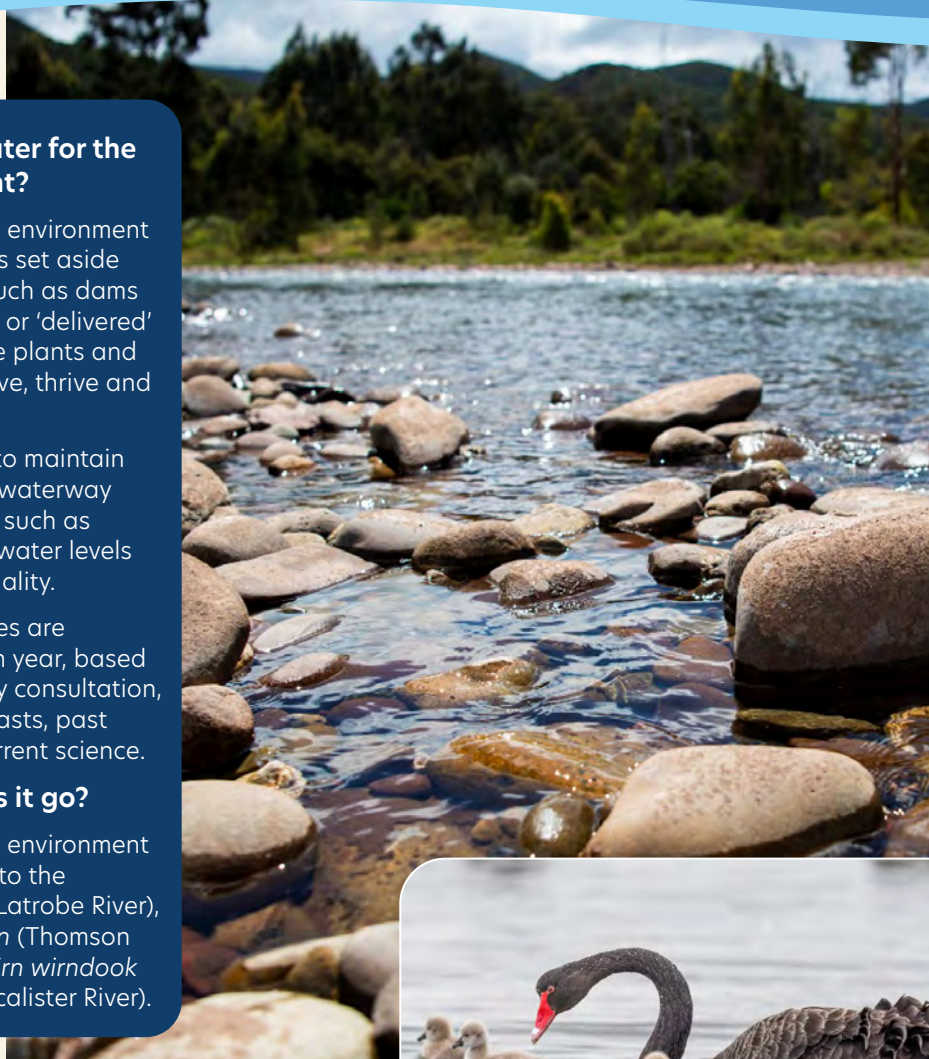
Water for the environment is water that's set aside in storages such as dams and released or 'delivered' to help native plants and animals survive, thrive and reproduce.

It also helps to maintain and improve waterway health needs such as connectivity, water levels and water quality.

Water releases are planned each year, based on community consultation, climate forecasts, past flows and current science.

### Where does it go?

Water for the environment is released into the *Durt'Yowan* (Latrobe River), *Carran Carran* (Thomson River) and *Wirn wirndook Yeerung* (Macalister River).



Above: *Wirn wirndook Yeerung* (Macalister River) (Credit: Annette Ruzicka)

We acknowledge and pay our respects to the Traditional Owners of this Country, the Gunaikurnai, and to their rich culture and spiritual connection to Country.

This document summarises the work done over the past year by West Gippsland Catchment Management Authority Environmental Water managers and partners. It also outlines the management plans for 2023-24.

### What a year it's been for our rivers and wetlands!

It's been no secret that the wet conditions of the last three years have continued throughout 2022 and into early 2023. Autumn, Winter and Spring rainfalls were above average across much of West Gippsland. These natural rain events plus releases from storages such as Lake Glenmaggie and the Thomson dam, provided flushing flows in the *Durt'Yowan* (Latrobe River), *Carran Carran* (Thomson River) and *Wirn wirndook Yeerung* (Macalister River) and filled Sale Common, Heart Morass and Dowd Morass. Planned water for the environment releases were cancelled as nature 'took the reins' and delivered freshening flows for us. The continuously wet conditions have done wonders for native fish species as well as wetland water quality, aquatic plant species and waterbirds.

With a warm, dry start to Summer and La Niña ending in early 2023, weather conditions seemed to shift to more average conditions. Wetlands began to naturally draw down, exposing mudflats and oxygenating soils. With rainfall and streamflow reducing, water for the environment releases have once again been delivered into the *Carran Carran* (Thomson River) and *Wirn wirndook Yeerung* (Macalister River) with more planned for the coming seasons.

As weather conditions trend towards more average seasonal conditions, and a high likelihood of an El Niño event developing, planning for water for the environment is even more important to ensure the fantastic ecological responses to the last three wet years are supported into the future.

To learn more about water for the environment in the West Gippsland region check out this [video by Dr Stephanie Suter](#) or [signup to keep up to date via email or SMS notifications](#).



Above: Black Swan (Credit: Andrew Franks)

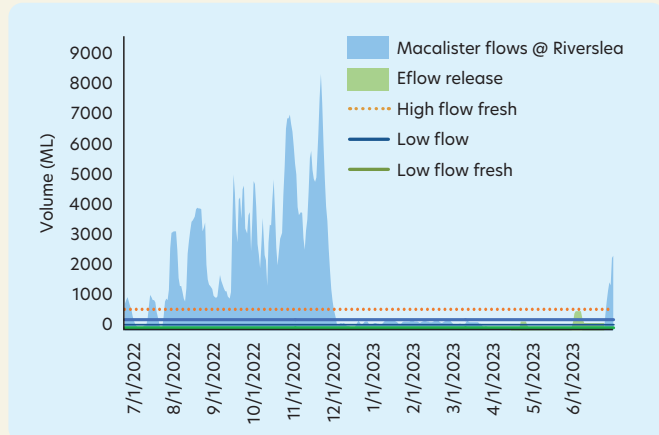
# Looking back

## What we delivered in 2022-23

The July and April **low flows** increased water depth in pools and over riffles to connect fish habitat and allow movement between sections of the rivers. It also gave fish and platypus an increased water level, providing cover to avoid predators.

The April **freshes**, or small pulses of water delivered into the system, were timed to trigger **downstream** migration and spawning of adult native fish species such as the Australian grayling (EPBC-listed species). The May fresh was delivered to trigger the **upstream** migration of the young offspring of these native fish species.

### Wirn wirndook Yeerung (Macalister River)



The beginning of the year has been naturally very wet, with consistently high rainfall and river flow in *Wirn wirndook Yeerung* (Macalister River). A managed spill was released from the Lake Glenmaggie dam in October to help Southern Rural Water manage their storage levels. Drier conditions began after January 2023, with water for the environment delivered between April and June. These included low flows, as well as two freshes.



Image: High water levels on Wirn wirndook Yeerung (Macalister River) at Bellbird Corner

Image: Managed spill release at Lake Glenmaggie

### Durt'Yowan (Latrobe River)

Wet conditions have seen environmental flow recommendations met without the need to deliver water for the environment.

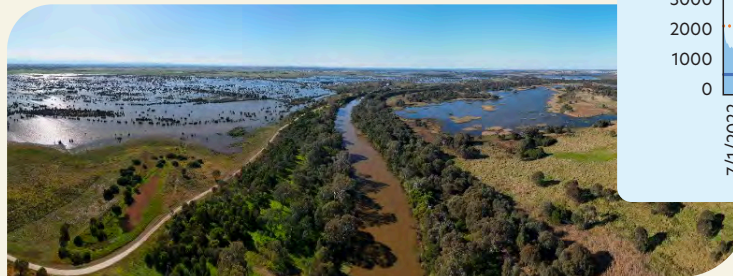
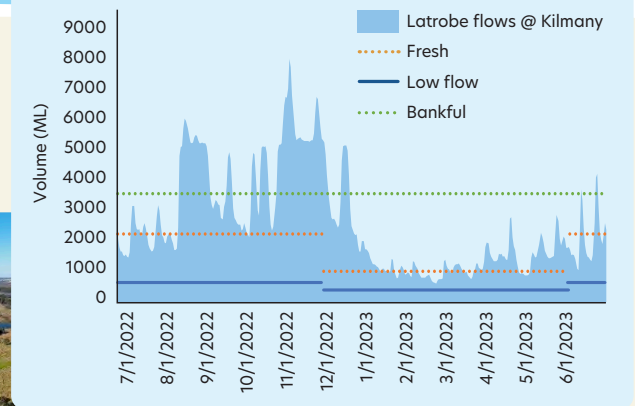


Image: Latrobe River and Lower Latrobe wetlands May 2023

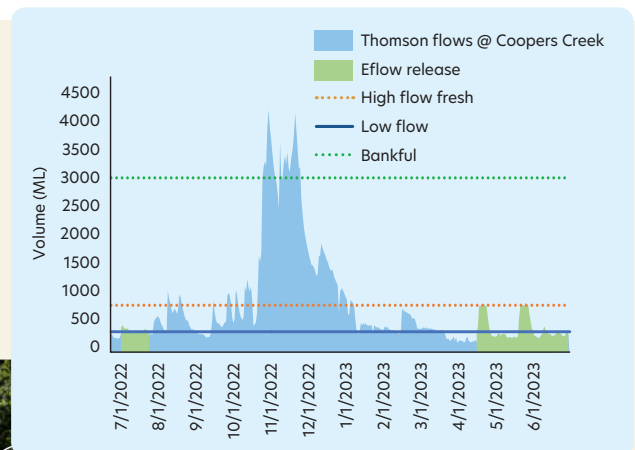


### Carran Carran (Thomson River)

The water year started off with a low flow released into the *Carran Carran* (Thomson). River flows increased from October to December, with the Thomson Reservoir spilling for the first time since 1994, leading to a spike in flow volume into November. From December, rainfall reduced but river flow remained above average until April and June when two freshes were required.



Image: Far left: Carran Carran (Thomson River) (Credit: Annette Ruzicka) and left: Thomson Dam spilling Nov 2022





# Looking back

## Notable achievements 2022-23



### Wetlands

After some good flushing flows and inundation towards the end of 2022, the Lower Latrobe wetlands are flourishing with bird breeding, plant growth and water quality improvements.

Monitoring has indicated:

- The water has remained relatively fresh with reduced salt concentrations recorded.
- A reduced threat of acid sulfate soils being exposed.
- The presence of the endangered Eastern Water-ribbons and vulnerable Annual Fireweed.
- An increase in the species richness and cover of aquatic and wetland plants.
- A second large-scale waterbird breeding event in Dowd Morass, with over 100 cormorant nests spread throughout the Melaleuca trees.

However, continuously wet conditions have also shown some potential negative impacts. Some river red gums, and swamp paperbark are showing signs of distress, likely caused by continued flooding. There is also less food available for wading birds because the mudflats they feed in have been underwater for a long period of time. This is a natural change but also reminds us that both the wetting and drying cycles are important. Partially drying a wetland allows soils to oxygenate which helps a range of vegetation to germinate and set seed. The last time the wetlands had a good drying phase was in 2019-20, so this will be a priority over the next year.

Image: Nesting Pied Cormorants



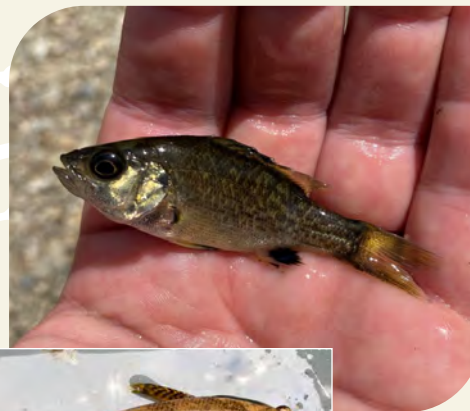
### Rivers

Fish surveys completed by Arthur Rylah Institute (ARI) showed high numbers of native Tupong, and River Blackfish in the Carran Carran (Thomson River). High numbers of introduced Carp and Brown trout were also recorded. An unusually low number of Australian Grayling were caught which may be due to competition or predation from other fish. A good diversity of other species was also captured in the Thomson including Southern Pygmy perch, Pouched Lamprey, Australian Smelt and Australian Bass.

Fish surveys on the Wirn wirndook Yeerung (Macalister River) detected large numbers of adult Australian Bass and an increase of Australian Grayling caught.

Given the good recruitment events in both the Thomson and Macalister over the last two years, water for the environment plans over the coming year will focus on supporting these native fish to continue to thrive.

Images: Pygmy Perch (right) and Tupong (bottom)



### Working together

Partnerships are important in managing water for the environment and we are lucky to have some amazing partners helping us achieve our shared goals. These include the Victorian Environmental Water Holder, Southern Rural Water, Parks Victoria and Melbourne Water (just to name a few...)

Three different advisory groups were consulted in our water for the environment planning process. The Macalister, Thomson and Latrobe Environmental Water Advisory Groups (EWAGs) worked to ensure local voices provided input into flow planning and decisions. These groups also represented 15 different community groups and stakeholders.

We worked together with Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) to continue to build cultural values and aspirations into management of water for the environment.

The community also benefited from our planned flows. Notifications and communications allowed recreational paddlers and event organisers to schedule trips around water for the environment deliveries.

Image: Members of the EWAGs and WGCMA staff



# Looking forward

## Planned water for the environment deliveries in 2023-24

This information is a summary of the 2023-24 Seasonal Watering Plan. This plan tells the story of the flows needed to support our rivers over the coming year. [You can view the full document online here >](#)



Image: Kayaking on the Thomson, Bruntons Bridge (Credit: P Gruber)

### Durt'Yowan (Latrobe River)

- 31.5 GL
- 25.2 GL
- 3 freshes
- 2 low flows

### Carran Carran (Thomson River)

- 17.9 - 20.1 GL
- 19.7 GL
- 4 freshes
- 2 low flows, plus Heyfield Wetlands fill and top ups (Aug -Dec)

### Wirn Wirndook Yeerung (Macalister River)

- 19.2 GL
- 17.8 GL
- 4 freshes
- 3 low flows



Image: Australian Bass (Credit: Callum Auldlist)

We're delivering coordinated flows across all systems for fish and estuary benefits.



Image: Heyfield Wetlands

Drier conditions are expected for 2023-24 compared to previous years. In average or drier conditions, we use water for the environment to help systems **recover** and to **maintain** the key functions of the river.

- 'Expected water available' for deliveries including environmental entitlements, carryover and other sharing arrangements.
- Planned environmental water deliveries unless provided naturally
- No. of freshes or pulses of fresh water released into the river
- No. of low flows to provide continuous connection along the river.

Note: Figures based on Gigalitres (GL), average conditions, and may change



Image: Dr Adrian Clements opening the regulator at Sale Common

While there is no formal water for the environment allocation for the Lower Latrobe wetlands, there is a provision to allow the WGCMA to divert water from the river via a regulator when necessary. Funding from the Victorian Government has been secured to update this water delivery infrastructure which is a great win for the wetlands!



→ [Register here](#) to receive notifications of our upcoming environmental flow releases

**LEGEND**

- Macalister Irrigation District
- Native vegetation
- Roads
- Unregulated rivers
- Regulated rivers



# Looking forward

## Potential environmental watering for Lower Latrobe wetlands in 2023-24

The lower Latrobe wetlands form part of the Gippsland Lakes Ramsar site. They include:

- Sale Common – 230 hectares of freshwater wetland
- Heart Morass – 1,870 hectares of fresh and brackish wetland
- Dowd Morass – 1,500 hectares of fresh and brackish wetland

Water is delivered to the wetlands to help satisfy natural wetting and drying cycles, generally through drawing down water levels in summer, and providing fills in winter.

After several consecutive wet years, the focus this coming year is on drying the wetlands. By allowing sections of the wetlands to dry out partially, soils can oxygenate which helps a range of native plants to reproduce. The last time the wetlands had a good drying phase was in 2019-20.

Water for the environment is used to:

-  **Heart Morass:** manage the impacts of acid sulfate soils by not allowing all of the wetland to dry out in summer
-  **Sale Common:** strategically manage giant rush, a native but invasive aquatic plant
-  **Dowd Morass:** manage salt water entering the wetland from Lake Wellington
- Everywhere:**
  -  support waterbird habitat, breeding and the ongoing survival of chicks
  -  support frog populations
  -  support waterbug populations as food for bird species
  -  support freshwater turtle populations
  -  support native plant communities to thrive in competition with invasive plant species



Image: Dowd Morass

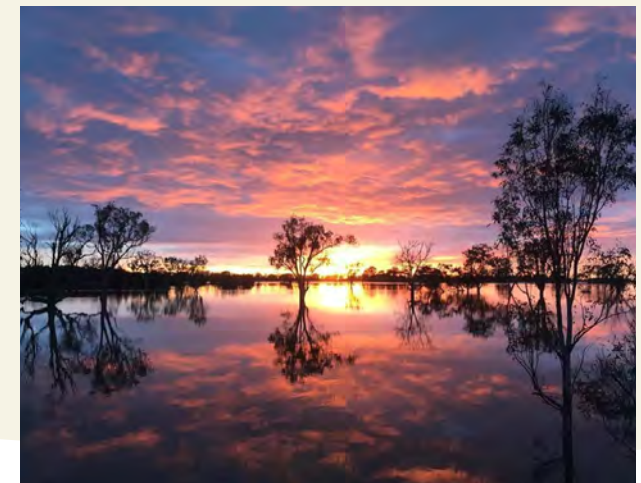


Image: Lower Latrobe wetlands (Credit: E Harrington)

## Our watering actions are designed to help support these values

### ECOLOGICAL

- Fish - Help eels and native fish to spawn, migrate and have healthy populations
- Macroinvertebrates - Support and improve the bugs that fish and other animals rely on
- Birds, turtles, frogs and reptiles - Help breeding, feeding and to support habitat
- Platypus and rakali (water rat) - Improve habitat for these shy and threatened creatures
- Vegetation - Support condition of plants in and beside the river, and control invasive plants/weeds
- River form - Maintain or improve the physical shape of the rivers and improve habitat
- Connectivity - Provide freshwater to connect pools within the river or to link estuary and wetland habitats
- Water quality - Improve water conditions to support aquatic life

### SHARED BENEFITS

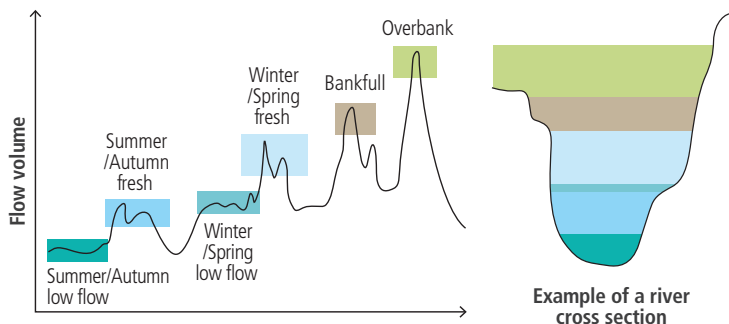
- Traditional Owners - Planned and/or delivered in partnership with Traditional Owners to support Aboriginal cultural values and uses
- Water sports - Watering planned to support sports activities (eg canoeing, kayaking, rowing, swimming, water skiing)
- Waterbirds - Watering planned to support waterbird-related recreational activities
- Fishing - Effective watering creates greater abundance and fundamentally supports angling and hunting

# Watering actions to support the environment year round

- LEGEND
- Freshes
  - Low flows
  - Wetland watering
  - Wetland drawdown



## Types of water for the environment flows



Because we continually monitor seasonal conditions and adapt flow deliveries to make the best use of every drop, we can't give firm dates in advance.

Image: Growling Grass Frog (*Litoria raniformis*) (Credit to Natalisa Tamkovich/shutterstock)



To sign up for flow notifications or see the full Seasonal Watering Plan, visit [wgcm.vic.gov.au](http://wgcm.vic.gov.au)