Latrobe River (*Durt'Yowan*) catchment

Priority projects for investment

Durt'Yowan (Latrobe River) has been the life source for people in Gippsland for thousands of years.

This mighty river system provides fresh water for towns, industry, power generation and agriculture.

It fills wetlands and feeds the Gippsland Lakes.

It supports thousands of plants, birds, fish and native wildlife.

It holds the stories of the Gunaikurnai people and their deep cultural connection to Country.

But can the river cope with climate change, coal mine closures and increased demand for water? Will it be flowing, healthy and alive in 50 years' time?

As river and waterway managers, it's our job to make sure it is. But we need some help.







The Living Latrobe Strategy is a West Gippsland CMA initiative to revive the Latrobe River system (Durt'Yowan), the life source of the Latrobe Valley and Gippsland. '<u>Transformation of the Latrobe:</u> <u>Pathways for the Latrobe River System</u>' comprises a package of management actions to improve the condition and health of the River system. This can be found at <u>wgcma.vic.gov.au</u>

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



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www.wgcma.vic.gov.au/latrobe

Locations of priority restoration work in the Latrobe River (*Durt'Yowan*) catchment





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Learn more

Watch this short film to learn more about the Durt'Yowan (Latrobe River)



Waterway restoration and protection in the Latrobe River (Durt'Yowan) catchment

Fencing, planting and weed removal

Working with Traditional Owners, landholders and public land managers to protect and restore land along the river and on the floodplain.

This is done by:

Fencing waterways This prevents livestock from polluting the water with excrement or mud, and damaging vegetation.

Controlling weeds

Removing and disposing of invasive willow trees, blackberries and other weeds. **Restoring vegetation** Replanting the site with a mix of specially selected native seedlings to stabilise and reinforce the banks against future threats.

Local benefits

- Increased land value.
- Reduced erosion on river banks.
- Increased habitat and food for native wildlife such as platypus, fish, frogs and birds.
- Local participation and partnerships.



Catchment benefits

- Improved nutrient removal and water quality flowing downstream to the Gippsland Lakes Ramsar site.
- Connected vegetation along the river, giving native animal species more continuous corridors of habitat (biolinks).
- Stabilised riverbanks to provide flood resilience.
- More carbon captured, stored in native plant species and soil.
- Improved landscapes for the whole community to enjoy.
- Increased overall catchment health and resilience.

Approximate cost

- ▶ \$20,000 per hectare for weed control
- ▶ \$10,000 per hectare to restore vegetation
- ▶ \$15,000 per kilometre for fencing

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Large scale wetland reinstatement in the Latrobe River (*Durt'Yowan*) catchment

Giving the Lower Latrobe Wetlands room to move

Working with landholders, Traditional Owners and partners such as Trust for Nature to restore and protect land around the Lower Latrobe wetlands.

Climate change is predicted to nudge these wetlands inland, in a westerly direction. Unless we can make room for them to move, there is a risk they may go locally extinct – along with the bird, fish and other wildlife they support, and the services they provide to people.

With salty water and rising sea levels pushing in from Lake Wellington it is important that these spaces, currently on flood-prone private farmland, are prepared for plants and wildlife to move and seek refuge there.

This is done by:

Reconnecting

Restoring natural water regimes by managing connections between the river and floodplain wetlands.

Restoring

Improving the condition and resilience of fringing freshwater wetlands and revegetation.

Protecting

 Ensuring the room to move is protected into the future via:
buy-back of high priority wetlands
conservation covenants
landowner joint management agreements

Local benefits

- Improved habitat and food for native animals such as platypus, fish, frogs and birds
- Cleaner water
- Local participation and partnerships



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Catchment benefits

- Improved nutrient removal and water quality flowing downstream to the Gippsland Lakes Ramsar site.
- Improved connection of vegetation in and around the wetlands, giving native animal species larger, more continuous corridors of habitat to use across the landscape.
- Resilience of native wetland plant communities, particularly saltintolerant species.
- Carbon capture and storage in the native plant species and soil.
- Improved overall catchment health and resilience.

Approximate cost

- Stage 1 estimate \$2-3 million
- Remaining stages \$10 million +

Meander reinstatement in the Latrobe River (Durt'Yowan) catchment

Restoring the natural flow

Working with landholders, public land managers and Traditional Owners to restore the natural shape and flow of the Latrobe River (*Durt'Yowan*).

The Latrobe River (*Durt'Yowan*) has been artificially straightened and is now 25% shorter than it once was, increasing the volume and speed of its flow. The goal is to reconnect those bends in the river to slow the water back down to a more natural speed and reinstate important riverine habitat for native fish and platypus.

This is done by:

Changing river flow path Placing rock structures in the river channel to redirect the water flow and strengthen the banks.

Reconnecting original river course Excavating soil to deepen the bend, encouraging water to choose this path again.

Revegetation

Replanting the site with a mix of specially selected native seedlings to stabilise and future proof the banks against future threats.

Local benefits

- Reduced erosion in the riverbed and banks
- Cleaner water
- Community participation and partnership opportunities



Catchment benefits

- Slowed water flow improves habitat for aquatic animals, such as native fish and platypus.
- Reinstated natural connectivity between the river and floodplain wetlands, boosting their health and resilience.
- Increased area for vegetation around the river, giving native animal species more habitat.
- Reduced sediments and nutrients flowing downstream into the Gippsland Lakes Ramsar site.
- Improved overall river condition and functioning.

Approximate cost

▶ Up to \$250,000 per site

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Fish barrier removal in the Latrobe River (Durt'Yowan) catchment

Clearing the way for fish to move

Working with landholders, public land managers and Traditional Owners to remove blockages and install fish ladders so fish can freely migrate up and down the Latrobe River (*Durt'Yowan*).

Many native fish and eel species migrate as part of their life cycle. These include the endangered Australian Grayling and the recreationally important Australian Bass. Weirs and dams block their journey, impacting their ability to breed and feed successfully.

This is done by:

Installing fish ladders Fish ladders are means to allow fish to move upstream past a weir or dam.

> **Removing weirs and other blockages** Machinery is used to dismantle and remove old infrastructure.

Approximate cost

- \$4 million Remove disused weir on the Tyers River to allow continuous fish migration all the way up to Moondarra Reservoir providing access to an additional 20 km of habitat.
- \$25 million Installing fish ladders at Yallourn weir and Lake Narracan unlocking 93 km of additional habitat (after the completion of the Latrobe Valley mine rehabilitations).



Local benefits

• Improved site aesthetic by removing old infrastructure.

Catchment benefits

- Increased diversity and resilience in native fish species.
- Increased accessible habitat for native aquatic species.
- Improved water quality.
- Natural river flow pattern and intensity reestablished.
- Built up sediment redistributed down the river, moving nutrients downstream and into the floodplain.
- Enhanced benefits for recreational anglers.