

# Guttrum and Benwell Forests

This project will improve environmental outcomes using less water than a natural flood while keeping more irrigation water in the region.



Guttrum and Benwell Forests make up almost 2,000 hectares of the northern Victorian Mid-Murray Floodplain. They support a range of rare and threatened flora and fauna species and huge old river red gums. For thousands of years Traditional Owners have called the area home and is known for its significant cultural heritage sites that are some of the oldest in the world.

Guttrum and Benwell Forests are two of the few remaining river red gum floodplain systems in Victoria and have significant ecological importance in the Murray Darling Basin. They are prime examples of remnant floodplain, and the remaining habitats have high conservation value, providing refuges and hotspots for biodiversity.

The Guttrum and Benwell Forests Victorian Murray Floodplain Restoration Project is designed to enable water for the environment to be delivered efficiently and effectively, without further water buybacks to give the plants and animals of Guttrum and Benwell Forests the water they need to flourish. The water will help to restore the extent and distribution of wetland vegetation and build resilience into both forests. Native fish numbers in the river will also benefit, as food-rich water is returned to the Murray.





The local project will use engineering works such as regulators and pump stations to efficiently and effectively deliver water to the floodplains without placing additional strain on local irrigators, and the local irrigation system.

This project is a major step towards restoring the floodplain's health, which has declined due to dry conditions and river regulation, and protecting it for future generations to experience and enjoy. The works will also provide a benefit for the local community by increasing tourism, local jobs and buying materials locally.

The project will be a significant boost for the local community and area by supporting irrigated agriculture, achieving environmental improvements and increasing recreation opportunities.

### **The Basin Plan**

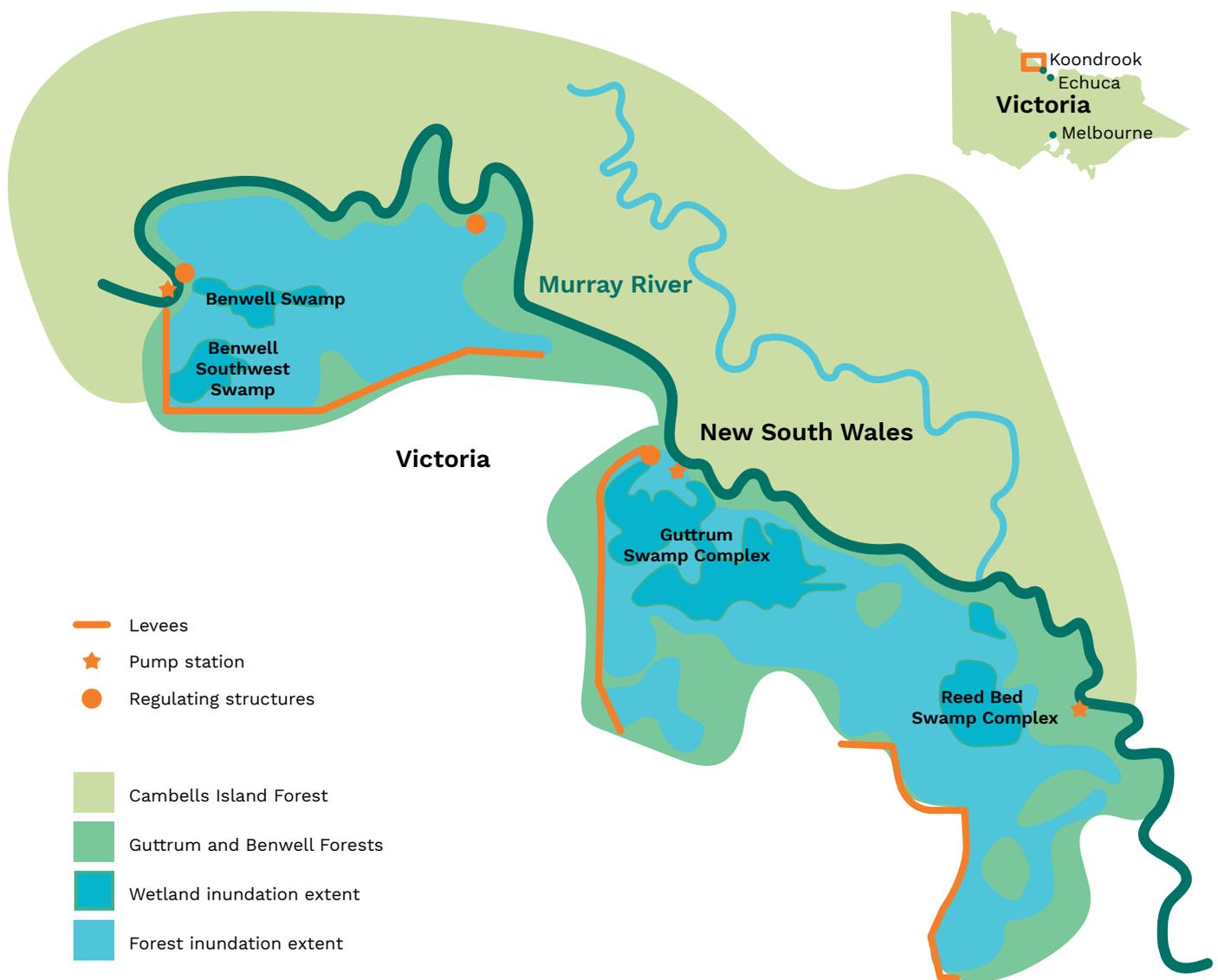
The Murray Darling Basin Plan aims to balance the needs of Basin communities, agriculture and the environment, to achieve a healthy and productive river system.

To facilitate this, state and federal governments have agreed to set a new Sustainable Diversion Limit (SDL), which determines how much consumptive water can be sustainably used by irrigation and shared with the environment.

The Murray Darling Basin Ministerial Council endorsed the final package of SDL Adjustment projects, including the Guttrun Benwell project. This enables further development of the project; working with communities. This enables the North Central Catchment Management Authority (CMA) and project partners to continue developing the project, working with communities and Traditional Owners on project design and implementation.

Victoria has put forward nine projects that will achieve a healthy river system without the need for further Commonwealth buy-backs, including two in the North Central CMA region. As a program of infrastructure works, environmental watering of highly valued floodplains and forests along the Murray River in Victoria will be enhanced.

Without this, major releases from storages would be needed to raise river levels high enough for it to spill into wetlands and overbank floods onto the floodplain. Using the proposed infrastructure saves water; keeps it in the region and aims to achieve similar environmental benefits that natural flooding provides.



### How Will Water Be Delivered?

Under the proposal, three pump stations are proposed to be installed in Guttrum and Benwell Forests on the Murray River, to deliver water for the environment to the forests.

Regulators are proposed to be built on forest outlets to control the water on the floodplain. This will ensure the river red gums and semi-permanent wetlands get a drink, plants have time to flower and set seed, soil moisture is replenished and waterbirds can feed and breed.

Through the project, levees will be constructed or repaired to fully contain water for the environment within the Guttrum and Benwell Forests.

### How Often Will The Forests Be Watered?

To meet the water needs of the plants and animals, water for the environment is planned to be pumped into the forests about four years in 10. A further three years in 10, water will be pumped in to the semi-permanent wetlands, meaning the pump station will operate approximately seven in every 10 years.

Additional water may also be pumped in to the forests to complement natural floods which are now too short. When combined with natural flooding this will ensure the forests or part of the forest, receives a drink every two to three years.

This will mean 99% of the forests semi-permanent wetlands, and 82% of the river red gums with a flood-dependent understorey will receive the right amount of water for the environment at the right time of the year, keeping them healthy and able to withstand droughts that are becoming more common.



### An Important System

Prior to European settlement, expansive river red gum forests with trees hundreds of years old provided a vital feeding and foraging ground for now-endangered birds such as the grey crowned babbler, Australasian bittern, and colonial nesting species such as the great egret.

About seven or eight years in every decade, the Murray River would flood and inundate the river red gum forests for months on end.

Smaller, overbank floods would also inundate the wetlands throughout the forest. Waterbird breeding and nesting events were common, with the birds attracted to the trees, the lush wetland vegetation and abundant food sources.

Because food was so rich, the area was a heartland for Traditional Owners, and there were a number of villages in the forests.

Even today, the forests contain irreplaceable cultural heritage assets.

### Impacts of Change

River regulation and climate change have had a dramatic impact on the forests, and the animals and plants that call them home. Floods are less frequent - with only five, short-lived forest floods in the past 20 years. As a result, the

health of the river red gums has suffered, there is little understorey in the forest, and the wetland vegetation has all but gone.

Wetlands such as Reed Bed Swamp no longer contain reeds, and the number of plant and animals has declined. The river red gums have marched into the wetlands, because a follow-up flood doesn't happen or isn't long enough to drown them out when they germinate on the wetland floor after a flood event. This reduces the area of open water habitat that ducks, spoonbills and swans need.

The lack of regular flooding has also reduced the ability of the forests to bounce back after large floods or dry periods, meaning they provide less habitat for animals. Bird numbers across the entire Murray-Darling Basin have declined 70% in the past 30 years, largely due to a loss of healthy habitat. In fact, the grey crowned babbler, who nest on edges of both forests, has declined by about 90% since pre-European settlement (Tzaros et al. 2014).

### Want to know more?

If you would like to know about the Victorian Murray Floodplain Restoration Project see our website [www.vmfrp.com.au](http://www.vmfrp.com.au) or email [info@vmfrp.com.au](mailto:info@vmfrp.com.au)

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