Gunbower National Park makes up almost 8,900 hectares of the internationally significant Gunbower Forest. It supports a range of rare and threatened species and is a significant cultural landscape for Traditional Owners.

The Gunbower National Park is one of the few remaining river red gum floodplain systems in Victoria and has a significant ecological importance in the Murray-Darling Basin. The forest is a prime example of remnant floodplain and the remaining habitats have high conservation value, providing refuges and hotspots for biodiversity. The Gunbower National Park Environmental Watering Project is designed to enable water to be delivered efficiently and effectively, to give the plants and animals of Gunbower National Park the water they need to flourish. This project would be a major step towards restoring the floodplain’s health and protecting it for future generations to experience and enjoy. The works will also provide a benefit for the local community, through tourism, camping and bird watching.
**HOW WILL THE WATER BE DELIVERED?**

This project aims to build a new regulator on Cameron’s Creek and replace an existing one to enable the right amount of water at the right time to be delivered to the creek, Black Charlie Lagoon and Baggot’s Swamp. An alternative irrigation supply arrangement is also planned for the irrigators currently using the creek.

A pump station will also be built on the Murray River to pump into a former irrigation channel which connects to Pig Swamp. The channel will be upgraded, and a regulator built to control water entering Pig Swamp and the forest. The project plans to pump water into the channel and direct it into either Pig Swamp or the river red gums areas of the forest. Levees are also proposed to be built or repaired, to contain water within the Gunbower National Park.

**HOW OFTEN WILL THE NATIONAL PARK BE WATERED?**

To ensure Cameron’s Creek continues to provide important habitat for small bodied fish, water would be delivered to the creek several times a year. Water would also be delivered to Black Charlie Lagoon once a year to top it up. The wetland would then be allowed to slowly drawdown the rest of the year. The goal for Baggot’s Swamp is to deliver less water, about every 5 years in 10, to support the river red gums and recover the understorey.

Water is planned to be pumped into Pig Swamp and the river red gum forest, which combined with natural flooding should provide this part of the national park with a drink every 2 to 3 years.
A NATURAL HAVEN

Cameron’s Creek is at the eastern end of the national park, and is connected to a series of permanent wetlands, including Black Charlie Lagoon. Prior to European settlement Cameron’s Creek flowed only when there was a rise in water levels in the Murray River. As water spilled down the creek, the permanent wetlands would fill and eventually spill down into the river red gum areas around Baggot’s Swamp. Cameron’s Creek and the associated wetlands today provide important habitat for small bodied native fish and for waterbirds.

Also in the upper section of Gunbower National Park is Pig Swamp, a semi-permanent wetland that provides habitat for waterbirds, frogs and turtles. Before European settlement, Pig Swamp overtopped during large flood events, flooding the broader river red gum forest 6 or 7 years in every 10. The floods would spread up to 50km either side of the Murray River and inundate the area for months on end. During these events this upper section of the forest provided important foraging areas for waterbirds that breed in the wetlands in the Gunbower Forest.

IMPACTS OF CHANGE

Cameron’s Creek has been a permanent waterway for more than 90 years since it was connected to the Murray River by construction of the Torrumbarry Weir. When irrigation water is delivered, water flows slowly through the creek, keeping Black Charlie Lagoon full most of the time, and sometimes spilling water into Baggot’s Swamp further in the forest. Operating the creek for irrigation has meant that the creek and wetlands have been receiving too much water at the wrong time of year. This has resulted in red gums drowning, the forest understory changing and Black Charlie Lagoon being less able to support a range of fish, ducks, frogs and other species.

River regulation and construction of irrigation infrastructure across the landscape have had a dramatic effect on Pig Swamp and the broader river red gum forest it is connected to.

For decades, Pig Swamp was used as part of the irrigation system, and was wet for nine months of the year, almost every year. This changed the wetlands vegetation, resulting in thick cumbungi stands which smother the sedges and delicate wetland herbs that would have once germinated.

Levees and channels built on the floodplain have also modified the way water moves into and across Gunbower Forest. Earthworks on the floodplain and the impact of river regulation have halved the amount of flooding experienced by the river red gum forest. This reduced flooding has impacted on the health of the forest, which is evidenced in the thinning tree canopies and sparse understory. These changes mean the forest is not able to support the number and diversity of animal and plants it once did.

THE BASIN PLAN

The Murray Darling Basin Plan aims to balance the needs of Basin communities 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 sustainably be taken from the Basin.

Victoria has put forward 22 projects that would achieve a healthy river system without the need for further Commonwealth buy-backs. Nine of these aim to build irrigation infrastructure on the floodplain to deliver environmental water in the most efficient way possible.

Without this, major releases from storages would be needed to raise river levels high enough for it to spill into wetlands and across the floodplain. Using this infrastructure means far less water is needed to achieve similar environmental benefits that natural flooding provides.

In June 2017, the Murray-Darling Basin Ministerial Council endorsed the final package of SDL Adjustment projects, including the Gunbower National Park Environmental Watering Project. This enables the North Central Catchment Management Authority and project partners to continue developing the project, working with communities on project design and implementation.

If you would like to know more about these projects, please contact the North Central CMA on (03) 5440 1813, visit www.nccma.vic.gov.au or follow us on Facebook or Twitter @northcentralcma