

## Environmental Impact Summary Report 2019-20

	2019-20 Summary of Outcomes	
<b>Watering Metrics</b>	Number of Watering Events	5
	Number of Wetlands watered	6
	Area of Wetlands watered (ha)	73 ha
	Volume of water delivered (ML)	
	<ul style="list-style-type: none"> <li>Fund Donated Water</li> <li>Commonwealth Environmental Water</li> </ul>	530 ML 67.5 ML <b>597.5 ML</b>
	<b>Total Volume</b>	

### 2019-20 Seasonal Conditions

At the time of developing the FY20 Annual Watering Plan, the forecast for the 2019-20 season was for a dry season which triggered a 20% water donation allocation, equivalent to 1400 ML. However, as the year progressed, the actual conditions in the Basin were equivalent to those experienced in a Very Dry year category which triggers a 10% donation, equivalent to 700 ML. A total donation of 1,400.6ML was received from the Murray Darling Basin Balanced Water Fund and an adjustment to the water volume donated in FY21 will occur due to the change in seasonal conditions during the course of the year. Of the water donation, a total of 530 ML were delivered to wetlands and 80.4 ML are being carried over for delivery in FY21. The remaining 790.2 ML were traded to fund the development of infrastructure and on-ground works which would enable the sustainability of water delivery to wetlands and to establish watering mechanisms to enable new sites to receive environmental water.

### Wetlands Receiving Water in 2019-20

#### Yambuna Lagoon

Yambuna Lagoon is an 11 ha wetland that is part of the Lower Goulburn River Floodplain Wetlands of National Significance. This year is the third year that Yambuna Lagoon has received environmental water through the Environmental Water Trust (EWT).

40 ML of the Environmental Water Trust water was delivered to Yambuna Lagoon in Victoria between October and November 2019 with the aim to:

- maintain health of Rushy Riverine Swamp and Riverine Swamp Forest Ecological Vegetation Classes (EVCs);
- maintain threatened flora species;
- provide areas of aquatic habitat for fauna, including birds and frogs; and
- maintain the health of culturally significant trees.

As a result of the watering, the following outcomes were recorded:

- the wetland continued to support a diversity of waterbird species including duck species, Little Pied Cormorant, Dusky Moorhen, White-necked Heron, White-faced Heron and the Australian Pelican;
- the wetland continued to provide suitable habitat for frog species including Spotted Marsh Frog, and Common Froglet;
- the watering event resulted in the establishment of new growth and flowering on monitored River Red Gums *Eucalyptus camaldulensis* including a culturally significant tree (scarred tree); and
- further establishment of wetland vegetation was supported by the watering event including for mudflat species such as Lesser Joyweed and culturally significant Common Sneezeweed.



Environmental Watering will not be undertaken at Yambuna Lagoon in FY21 to implement a dry year as part of the site's 10-year watering strategy.

#### O'Kane's Swamp

O'Kane's Swamp is a 3 ha rain fed shallow freshwater marsh in Northern Victoria that is of significance as a known Brolga *Grus rubicundus* breeding site that also provides habitat for the threatened Australasian Shoveler *Anas rhynchotis*. This is the second year that O'Kane's Swamp received Environmental Watering.

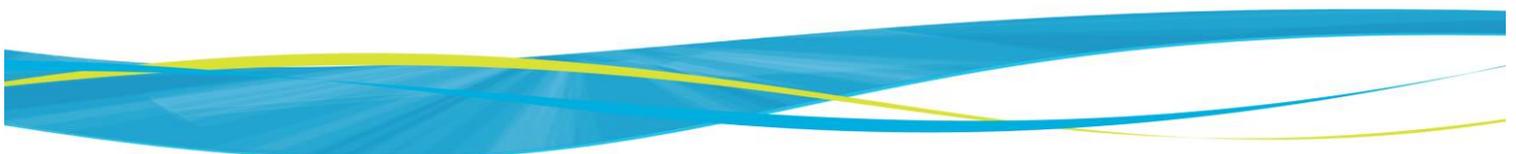
140 ML of the Environmental Water Trust water was delivered to O'Kane's Swamp through two separate watering events, one between October and December 2019 and the second between April and June 2020 with the aim to:

- provide suitable habitat for Brolgas;
- provide habitat for other threatened waterbirds; and
- support the landholder in creating suitable habitat for Brolga breeding.



As a result of the watering, the following outcomes were recorded.

- One threatened bird species was recorded during the watering events, the Hardhead *Aythya australis* (listed as Vulnerable in Victoria).
- The wetland provided suitable habitat for large numbers of waterbirds including White-faced Herons, Yellow-billed Spoonbills and more than 200 ducks of different species.
- The establishment of wetland vegetation was clearly evident at the site including the extensive cover of Common Spike-rush and Juncus species.



## The Plain Paddock

The Plain Paddock is a 15 ha wetland on private property in Northern Victoria which is significant as it contains the Nationally Threatened plant community of 'Seasonal Herbaceous Wetlands' and is listed in the Directory of Important Wetlands as part of the Broken Creek nomination as it is closely associated with the Broken Creek floodplain and Numurkah Natural Features Reserve. This is the first year that this wetland received watering through the EWT.

A total of 75 ML of water was delivered to Plain Paddock wetland in September-October 2019 with the aim to maintain the health and extent of the Plains Grassy Wetland EVC.



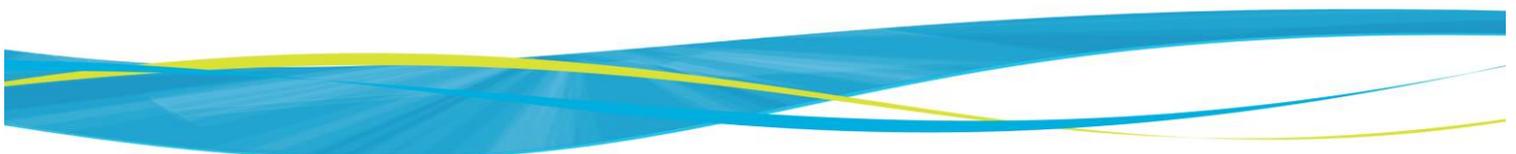
As a result of the watering, the following outcomes were recorded.

- An immediate response from waterbirds was observed with three species (White-necked Herons, White-faced Herons and Pacific Black Ducks) recorded at the wetland within 24 hours of watering commencing.
- Three threatened species have been recorded; Hardheads *Aythya australis* (listed as Vulnerable in Victoria), Glossy Ibis *Plegadis falcinellus* (Vulnerable in Victoria), and the EPBC Act listed migratory species, the Sharp-tailed Sandpiper *Calidris acuminata*.
- Spotted Marsh Frogs were recorded breeding in the wetland.
- The watering event resulted in the establishment of new growth on Grey Box *Eucalyptus microcarpa* that are being monitored for tree health.

## Wingillie Station

The Wingillie Station wetland complex is strategically located within the broader floodplain wetland landscape as it is immediately downstream from other important wetland complexes, including the Carrs Cappitts and Bunberoo Creeks, Backwater Lagoon and Lucerne Day watering sites. It contains diverse vegetation communities and habitat types which support a range of flora and fauna species including the nationally endangered Southern Bell Frog *Litoria raniformis*. When the wetlands are full, it provides habitat for the Freckled Duck *Stictonetta naevosa*, Blue-billed Duck *Oxyura australis* and White-bellied Sea-eagle *Haliaeetus leucogaster*. Within this wetland complex, Little Frenchmans Creek is the site of the first NSW reintroduction of the nationally endangered freshwater fish known as the Murray Hardyhead *Craterocephalus fluviatilis*.

275 ML of the Environmental Water Trust water and 61.4 ML of water from the Commonwealth Environmental Water Holder was delivered to the Little Frenchmans Creek, Henry Creek and Lake Henry within the Wingillie Station wetland complex between October 2019 and January 2020.



As a result of the watering, the following outcomes were recorded.

- The endangered Southern Bell Frog was recorded calling from Lake Henry and Henry Creek throughout the watering period.
- Lake Henry provided foraging and roosting habitat to a wide variety of waterbirds (29 species recorded). The threatened Freckled Duck and Blue-billed Duck were among the eight duck species identified.
- Fish monitoring for the Murray Hardyhead showed ongoing recruitment and breeding.
- Several records of De Vis's Banded Snake *Denisonia devisi* were made throughout the watering period at Lake Henry. This is an uncommon snake, rarely recorded in the southern basin. It inhabits seasonally flooded wetlands and stays in soil cracks during the day before coming out to feed on frogs at night.



*This report provides an update on the outcomes achieved through the donations of water and cash from the Murray Darling Basin Balanced Water Fund under its constitution. The donations are made to the Environmental Water Trust, which has engaged the Murray Darling Wetlands Working Group to deliver environmental watering services with scientific oversight and review provided by The Nature Conservancy.*

