Environmental flows in the Jimaringle, Cockran and Gwynnes creek system

Since 2011, the NSW Office of Environment and Heritage (OEH) has delivered more than 14,000 megalitres of environmental water to improve the health of the Jimaringle, Cockran and Gwynnes creek system.

The Jimaringle, Cockran and Gwynnes creeks (JCGC) complex is an ephemeral system located around 60 km west of Deniliquin in the Wakool district, and is considered an important ecological and community asset within the Edward–Wakool system (see map).

The natural flow regime of the JCGC has been greatly altered due to river regulation and changes to the landscape. Several block banks and levees currently impede overbank flows that would normally connect the system to the Colligen Creek and Neimur River. As a consequence, several sections of the JCGC system have not received flow for over a decade, and in the case of Gwynnes Creek, for over 40 years.

In response to community concerns about the health of the system, a partnership was developed between local landholders, the Office of Environment and Heritage (OEH), the Commonwealth Environmental Water Office (CEWO), Murray Catchment Management Authority (MCMA) and Murray Irrigation.

The environmental watering project was initiated after the community approached OEH with concerns for the decline in health of the system, exacerbated by prolonged drought.

Call (02) 6022 0617 to find out more about watering wetlands on your property.
Environmental water use

Since 2011, over 14,000 megalitres of environmental water sourced from the NSW and Commonwealth governments has been delivered to the JCGC using Murray Irrigation and landholder infrastructure.

- During the initial 2011 autumn trial 3557 megalitres of environmental water was delivered through two Murray Irrigation escapes, inundating about 30 km of Jimaringle and Cockrands creeks.
- In autumn 2012, 6200 megalitres of environmental water was delivered to the Jimaringle and Cockrands creeks, inundating approximately 60 km.
- The spring 2012 event saw the delivery of 4983 megalitres of environmental water to 80 kms of channel, incorporating Gwynnes Creek for the first time, using two Murray Irrigation escapes and five private outlets to deliver the water.

Ecological outcomes

Monitoring of the watering events by OEH and MCMA indicates there has been a positive ecological response to the environmental watering events. This includes:

- improved water quality throughout the creeks
- eight frog species identified in all creeks, with the nationally listed 'vulnerable' southern bell frog found at Gwynnes Creek in spring 2012
- over 20 waterbird species supported by the creek complex were observed foraging within the channels during the watering
- improved condition of riparian trees through new growth, increased canopy densities and recruitment. Floodplain associated understorey plants increased in abundance, flowered and set seed.

Call (02) 6022 0617 for copies of the community reports written after each watering event.