



Murrumbidgee & Yanco Creek System 'Piggyback' Flow 2015

Update 2 – 17th August '15

This document provides the latest information for landholders, local councils and other stakeholders about planning for a 'piggyback' flow along the Murrumbidgee River and Yanco Creek systems in late Winter or Spring 2015.

What is the 'piggyback' flow?

The Office of Environment and Heritage (OEH) and the Commonwealth Environmental Water Office (CEWO) are planning an environmental water release to 'piggyback' on natural flows in the Murrumbidgee River to achieve a number of high priority environmental outcomes.

The intent is to release environmental water from Burrinjuck and Blowering dams, into the Murrumbidgee River to allow water to reach low-lying wetlands along the main river and Yanco Creek system.

Releases would be made when rainfall provides significant inflows from tributary streams, downstream of the major water storages. By 'piggybacking' onto these natural inflows we can optimise the limited environmental water allocation and create a more effective watering event.

If feasible, additional minor piggyback releases may potentially be made from the Tombullen off-river storage into the Murrumbidgee River, just up-stream of Darlington Point.

Similarly, on the Yanco Creek system, releases from the Coleambally Catchment Drain (if available) will be managed to increase the levels in Yanco Creek downstream of Morundah.

What level will the flow reach?

The environmental water releases are **targeted to reach a river level of 4.9m** (or 27,500 ML/d) at Wagga Wagga. **This is well below the minor flood level of 7.3m**, and almost 1m lower than the previous 'piggyback' release level in 2011.

By setting the target at 4.9m it is hoped that inconvenience to stakeholders is minimised. However, the possibility of exceeding or falling short of this target due to unforeseen circumstances such as heavy local rainfall needs to be recognised.

If heavy rainfall is predicted during or shortly after the planned release of environmental water, the event will be managed accordingly, postponed or immediately ceased, so as to minimise the chances of exceeding river levels of 4.9m at Wagga.

How much environmental water will be released?

The volume of environmental water released over the duration of the event could range from 40,000 megalitres (ML) up to a maximum of 260,000 ML depending on allocation availability and the size of the base flow. Water will primarily come from Commonwealth environmental water holdings and NSW environmental water allowances.

Why is it being done?

During the drought years (2002-2010), hundreds of wetlands along the Murrumbidgee River that connect to the river during high river flows remained dry. The lack of inflows to these wetlands resulted in severe impacts on their aquatic vegetation and ecology. The planned environmental water release is designed to inundate a large number of the lower lying wetlands and greatly assist in their recovery.

Healthy wetlands provide critical breeding and foraging habitat for native fish, waterbirds, and frogs. They support a wide range of native plant species, help in improving water quality, and feed the river with insects and crustaceans, juvenile fish, nutrients and carbon – supporting its productivity.

Since 2012, OEH has identified the need for a piggyback event and therefore has listed it as priority action for the Murrumbidgee valley. Over the last couple of years, conditions have not been right to proceed due to a lack of tributary flows or other constraints.

Consequently the need to inundate the Murrumbidgee's low-lying wetlands is more of a priority with each dry season.

When will it happen?

Currently (with Burrinjuck Dam maintenance temporarily constraining release capacity) the decision to release environmental water is dependent on enough rainfall to initiate tributary flows that will reach a minimum river level of approximately 3.5m at Wagga. By mid-late September with increasing water available and Burrinjuck Dam fully operational again, a release may be possible on a lower base flow. Environmental water releases would still piggyback on these flows to target a combined river level of up to 4.9m at Wagga.

The environmental water releases are being planned for some time between August and October 2015. **The actual commencement date and duration for the event will be dependent on rainfall and environmental water availability.** The Bureau of Meteorology (BOM) rainfall forecasts and Water NSW operational limitations indicate that the likely timing for an event currently (as of 17th August 2015) is:

17th - 23th August - there will be no releases, due to no significant rainfall forecast until the 21st August

24th – 31st August ‘likely’ due to the wet catchment conditions combined with current BOM rainfall outlook (however, ongoing maintenance works at Burrinjuck Dam may not be completed, hence release rate constrained and higher base flows required)

September 1-15th – ‘very likely’ assuming completion of maintenance works at Burrinjuck Dam and increasing e-water availability

September 16-30th – ‘most likely’ assuming completion of maintenance works at Burrinjuck Dam. Further increases in e-water availability may allow releases to be made on lower base flows, hence increasing likelihood of an event at this time.

October 1st to 15th – ‘unlikely’. Generally a higher irrigation demand at this time of year means a very significant rainfall event is required.

October 16th to 31st – ‘Highly unlikely’. Typically, peak irrigation demand and a drying catchment means a very significant rainfall event is required to provide sufficient runoff to trigger the event, while also temporarily reducing irrigation demand.

The above event timing indications will be reviewed by OEH and provided to stakeholders on our contact list on a **weekly** basis. When a potentially suitable rainfall event is forecast **daily** updates will be provided to stakeholders.

Stakeholders will be notified once a commencement window has been confirmed and prior to releases of environmental water.

If environmental releases are not required, or if the piggyback flow is abandoned, stakeholders will be notified as soon as this decision is made.

Will it impact me?

If you have property that is normally affected by rising Murrumbidgee River levels then there is a possibility that you could be affected. However, as the proposed release is well below the minor flood level, impacts are expected to be minimal.

Table 1 on page 5 lists a number of predicted river heights for the proposed Murrumbidgee Piggyback event.

OEH has consulted with many potentially affected landholders with a view to identifying and addressing risks associated with this environmental flow.

OEH and partner agencies have worked hard to address concerns of potentially affected stakeholders.

If you think you may be impacted by the proposed ‘piggyback’ flow please contact OEH. Landholders who lease areas of their floodplain property should make this information available to lessees.

Who is responsible for the event?

OEH manages environmental water allocations in NSW and is the lead agency for the environmental flow event. Water NSW manages water orders and deliveries.

Partnering agencies include Water NSW, DPI Water (formerly known as NSW Office of Water), Riverina Local Lands Services (RLLS) and the Commonwealth Environmental Water Office (CEWO).

How will I know if the flow is occurring?

Landholders/managers

Landholders or stakeholders who wish to be kept informed of the planning and implementation of the Murrumbidgee 'Piggyback' Flow should provide their contact details to OEH via one of the means at the bottom of this update.

Communication will continue for the duration of the event through the provision of regular event updates to website, local media and contact lists, or via direct calls to OEH.

OEH staff will manage the pre-event communications and Water NSW will take over during the release phase. Together they will provide regular communication updates to:

Local councils – contact with the relevant councils will be made to ensure infrastructure such as roads or drainage systems are not unexpectedly inundated by released environmental water.

Project partners – to ensure project partners are aware of the details of the proposed event and that potential risks are identified and managed within a risk management strategy.

SES – will be notified by OEH prior to any releases as a courtesy and preventative measure. However, as the proposed flow (4.9m) is **below** the minor flood level (7.3m) at Wagga, it is not anticipated that the SES will be involved in flow-related operations.

Public information – OEH media releases will be issued to local newspapers and radio stations to inform the wider Murrumbidgee community of the environmental water release and the objectives of the flow. Regular event updates will be posted on the OEH website at:

<http://www.environment.nsw.gov.au/environmentalwater/murrumbidgee-news.htm>

Where do I get more information?

If you would like to be informed via SMS or email on progress of planning and implementation of the proposed Murrumbidgee 'piggyback' flow then please send an email to:

James Maguire

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NSW Office of Environment and Heritage

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Email james.maguire@environment.nsw.gov.au

Table 1. Predicted river heights for proposed 2015 Murrumbidgee Piggyback event

Location	Height (m)	Discharge (ML)	Duration (days)	Travel time from Burrinjuck
Gundagai	4.0 to 4.4 ¹	20,900 to 24,800	3-4	1.5 days
Wagga	Up to 4.9 ²	Up to 27,500	3-4	2 days
Narrandera	5.0 to 5.4	21,500 to 25,200	4-5	5 days
Yanco Creek Offtake	3.4 to 3.8	1,700 to 2,200 ³	4-5	6 days
Darlington Point	4.4 to 5.0	16,100 to 20,900	5-6	7 days
Carrathool	4.5 to 5.0	13,300 to 15,800	5-6	10 days
D/S Hay Weir	5.0 to 5.5	12,000 to 14,000	6-7	12 days
D/S Maude Weir	5.0 to 5.6	11,000 to 13,000	8-9	13 days
D/S Redbank Weir	5.7 to 5.9	9,280 to 10,100	10-12	15 days
D/S Balranald Weir	5.3 to 5.8	7,900 to 9,700	12-14	18 days

¹ similar to maximum irrigation flow levels in full allocation years

² lower than any previous piggyback flow event

³ the current NOW approval specifies environmental flow levels up to 2,600ML/day at the Yanco Creek Offtake (YCO), however with the proposed target level at Wagga, the predicted peak YCO flow is unlikely to exceed 2,200ML/day.

Note: The actual river heights and flow durations may vary substantially from the above estimates, depending on the extent of supplementary orders