

Community Information Communiqué

Management of Menindee Lakes 2011-2012

Issue 6 – 23 March 2012

Introduction

High flows generated from major floods in northern NSW and southern Queensland catchments during January have merged and around 4,400 gegalitres has passed through Bourke so far in this event. The peak reached Tilpa this week with the Darling River rising to a peak of 12.9 meters and a flow of 130,000 megalitres per day. Peak flows are expected to reach Wilcannia in about 10 to 12 days time and arrive at Menindee in mid-April. The NSW Office of Water and State Water Corporation are continuing to manage operations at Menindee Lakes in anticipation of the forecast inflows.

This information paper and subsequent updates will describe current flow conditions and operations, as well as provide information on what can be expected through April and May as the flood waters pass through the Darling River system.

Residents and authorities are reminded to check with the NSW Office of Water in Buronga for approvals that might be necessary before undertaking any earthworks to protect infrastructure or crops.

Current flows

Current water levels and flows as at 22 March 2012

Location	Height (m)	Flow (ML/d)	Comment
Collarenebri (total)	1.85	578	Steady
Walgett	3.70	2,069	Falling (Peak 284,000 on 13/02/2012)
Brewarrina (total)	4.57	24,402	Falling (Peak 199,000 on 29/02/2012)
Bourke	11.97	65,813	Falling (Peak 240,000 on 04/03/2012)
Louth	12.80	114,621	Falling
Tilpa	12.87	130,000*	Falling (* estimated value only)
Wilcannia	10.10	33,264	Rising
Menindee Town	9.51	-	Steady
Weir 32	6.98	34,013	Steady
Pooncarie	7.16	16,501	Rising slowly
Burtundy	6.97	17,587	Rising slowly (Potential max height of 7.7m)



Menindee Main Weir gates looking upstream into Lake Wetherell – 12 March 2012
Courtesy Barry Philp, SWC

River Operations

Upper Darling River Flows and Menindee Storage Volume

Heavy rainfall across much of NSW in early March produced significant flooding in catchments, especially the Murrumbidgee, and an immediate rise in water levels in and around Menindee. On 3 March levels in the Darling River main channel at Wilcannia rose by 0.65 meters (approximately 2,000 megalitres per day).

The increased flow from this rainfall has meant that current inflows to Menindee and at Weir 32, ahead of the flood peak which is currently passing Tilpa and approaching Wilcannia, are higher than previously anticipated and there will be less airspace in storage. Nevertheless the additional flows can be managed within the current operational strategy for Menindee Lakes.

It is now expected that flows will gradually reduce to around 33,000 megalitres per day at Weir 32 while the main weir gates are out of the water. Peak inflows are expected to be around 60,000 to 70,000 megalitres per day by mid April, however these will be mostly captured in the Menindee Lakes system by replacing the main weir gates in late March and preventing outflows to Weir 32 from exceeding 35,000 megalitres per day. This will ensure that flooding at Menindee town and immediately downstream is no more than that currently being experienced.

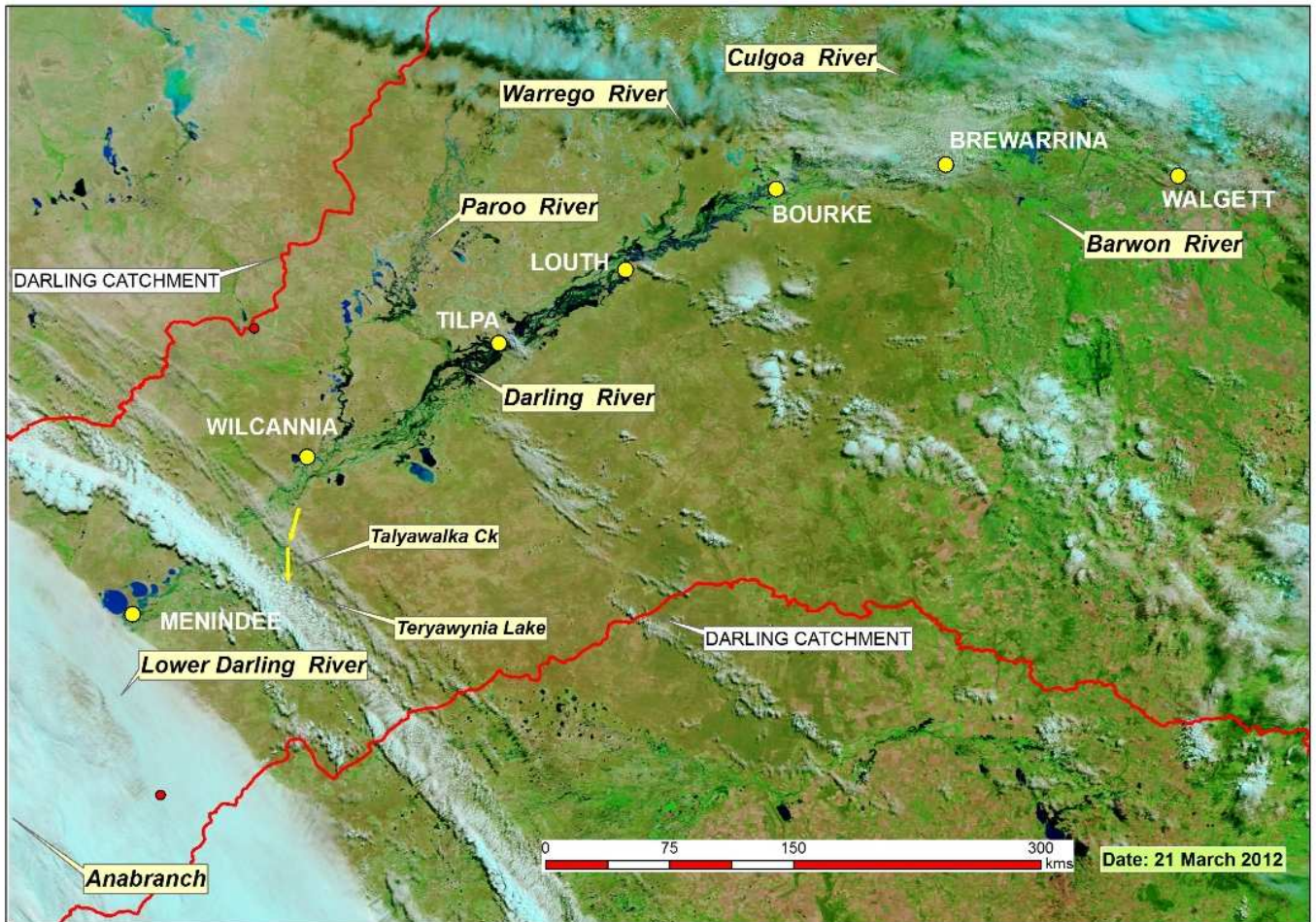
Depending on the total flow volume through Wilcannia and into Menindee, these high releases from the lakes of around 35,000 megalitres per day are likely to continue until May.

Currently, Menindee Lakes are holding 1,445 gigalitres of water or 83 percent of full supply capacity, and slowly falling. NSW Office of Water aims to ensure that the lakes are full at the end of this flood event to provide maximum water availability into the future.

Satellite image of flows in the Barwon-Darling catchment

Image: MODIS Australia6 Subset - Terra 250m Bands 7-2-1 Image for 2012/067 (22 March 2012)

Source: NASA/GSFC, MODIS Rapid Response 2012



At the peak of flooding in early April flows in the Darling River main channel at Wilcannia and the adjacent Talyawalka Creek at the Barrier Highway will be around 45,000 and 60,000 megalitres per day respectively. Some of the Talyawalka flow will return to the Darling River and add to inflows into the Menindee Lakes. The balance will be pass throughout the extensive Talyawalka Creek system with peak flows returning to the Lower Darling below Weir 32 up to 15,000 megalitres per day. The timing of this return flow remains uncertain, however Menindee releases will be adjusted to mitigate the effects of this additional Talyawalka inflow.

Lower Darling River Flows

Downstream flooding could be similar to that experienced during the 1998 flood which had a comparable peak flow at Bourke of 230,000 megalitres per day (13.78m gauge height). Menindee releases to the Lower Darling in that event reached 46,500 ML per day through Weir 32 (7.45m gauge height or 10.0m at the Menindee Town gauge).

The targeted peak flow for this 2012 event is only 35,000 megalitres per day through Weir 32 however return flows from the Talyawalka could lift flows in the top of the Lower Darling as high as 50,000 megalitres per day. Historically, flows of this size generally then split fairly evenly between the Lower Darling and the Great Anabranch.

Water levels in the Lower Darling River at Pooncarie and Burtundy are both rising slowly. If flooding similar to 1998 occurs as expected, this would result in peak flows of 24,000 ML per day (7.7m gauge height) at Pooncarie and 22,000 ML per day (7.7m gauge height) at Burtundy.

Great Darling Anabranch Flows

Flow in the Lower Darling at the Great Anabranch effluent has been relatively steady throughout March at around 18,000 megalitres per day, commensurate with the steady flows through Weir 32. In the Anabranch at Wycot the

flow has gradually risen throughout March and is currently nearly 13,000 megalitres per day and some 4.2 meters. At the peak of flow expected in late April/May levels are not expected to exceed 5.2 meters. A few thousand megalitres per day is now flowing in the lower reaches of the Anabranch and joining the Murray River. It is anticipated that this full connectivity through the Anabranch system will last at least through May, with significant flow volumes expected to reach the Murray River.

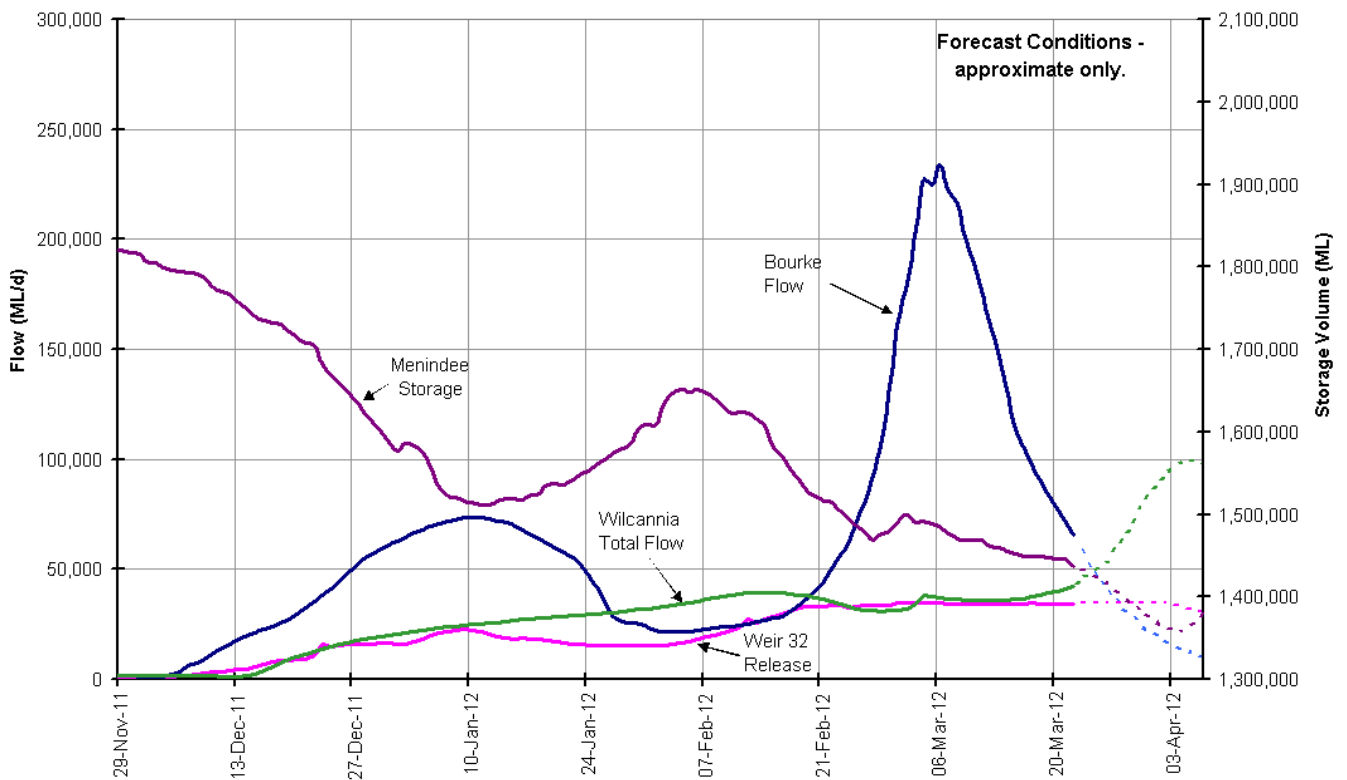
Combined Murray and Murrumbidgee River Flows

The flood peak in the Murrumbidgee River is current just downstream of Hay where the river is now falling slowly from 12.9 meters. Peak levels of around 6.8 to 7.0 meters (or some 40,000 megalitres per day) are expected at Balranald in the second week of April. This water will then enter the Murray River and produce flows at Euston Weir of around 60,000 megalitres per day from mid April.

At this stage it appears the Murray peak flow will pass Wentworth in mid to late April with the Darling River contributing steadily flows of around 18,000 to 22,000 megalitres per day during this period. Flows from the Great Darling Anabranch will be much longer arriving at the Murray and have minimal impact on peak flows.

It is expected that high flows to South Australia will persist from mid-late March to early-mid May but at rates unlikely to exceed the February 2011 event which peaked around 90,000 megalitres per day.

Darling River Flows and Menindee Storage Volume



How this flood compares to previous events

The table below shows a comparison of the current flood events with previous floods.

Year	Max height at Bourke (m)	Total Volume at Bourke (GL)	Max height at Wilcannia (m)	Total flow at Wilcannia (incl. Talyawalka Ck) (GL)	Max height Weir 32 (m)
1971	13.73	7,700	11.0	5,800	7.6
1974	14.09	8,200	11.07	6,450	7.63
1976	14.17	14,000	11.59	10,500	8.07
1983	13.27	7,200	10.65	5,500	7.06
1990	12.99	9,000	11.0	8,150	7.37
1998	13.78	9,700	10.83	6,700	7.45
2010	10.78	2,370	9.43	2,400	5.44
2011	12.56	5,800	10.5	5,000	7.10
2012	13.8	5,000**	10.9*	4,000**	-

* Value predicted by the Bureau of Meteorology

** Values predicted by the NSW Office of Water

Releases from the Menindee Lakes at 22 March 2012

Location	ML/d
Main weir	36,300
Lake Wetherell outlet	250
Lake Pamamaroo outlet	0
Lake Menindee outlet	0
Lake Cawndilla outlet	1,200
Total	37,750

Communication and additional information

As conditions over summer can change relatively quickly, the NSW Office of Water and State Water will continue to monitor the situation carefully and provide regular information to the community.

Where do I go for additional information?

Central Darling Shire (Road and Asset information) Reece Wilson T 0429 915 992

NSW Office of Water: Bunty Driver T 0407 403234 or visit the website www.water.nsw.gov.au

State Emergency Service Far West Region Head Quarters T 02 6879 7100 or visit website www.ses.nsw.gov.au

State Water: Menindee Officer on Duty: T 0429 784334