



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 22 OCTOBER 2014

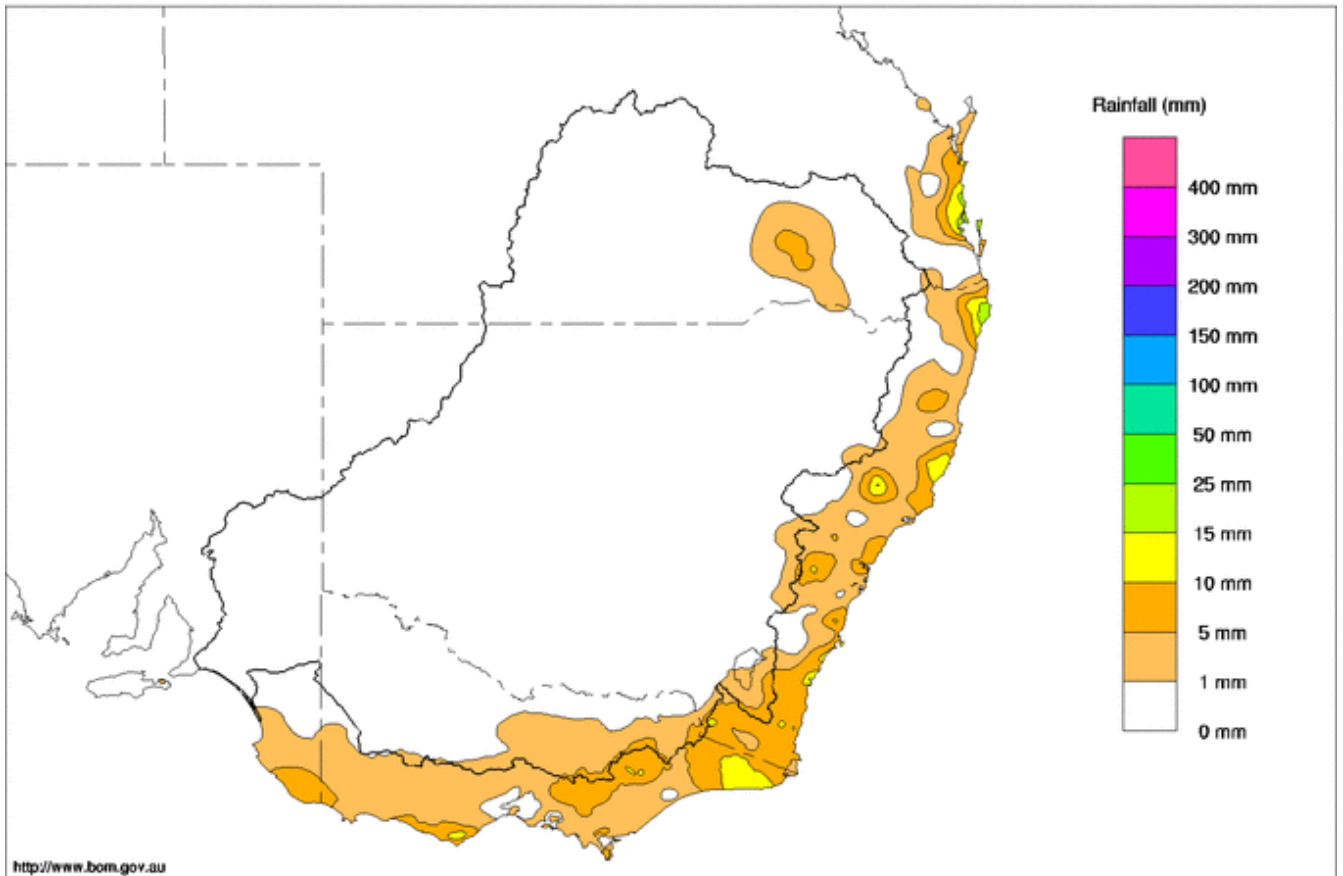
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Rainfall and Inflows

There was very little rainfall across the Basin this week as consecutive high-pressure systems slowly tracked their way across south-east Australia (Map 1). The highs brought above-average October temperatures to the west of the Basin, including multiple days above 35 degrees at several towns along the Murray and Lower Darling such as Renmark, Mildura and Pooncarie.

Few significant rainfall totals were recorded in the Basin this week. The highest registered was 11 mm at Mt Hotham in Victoria. In NSW, 6 mm fell at Cooma; whilst in Queensland 9 mm was recorded at Meandarra in the Darling Downs.

Murray-Darling Rainfall Totals (mm) Week Ending 22nd October 2014
Australian Bureau of Meteorology



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Map 1 - Murray-Darling Basin rainfall for the week ending 22nd October 2014 (Source: Bureau of Meteorology). Issued: 22/10/2014

Stream flows in the upper Murray tributaries continued receding this week and are now at levels not seen since early June 2014. The Mitta Mitta River at Hinnomunjie has decreased from 1,100 to 700 ML/day, whilst the Murray at Biggara has fallen from 1,200 to 900 ML/day. On the Ovens River, the flow at Wangaratta receded from 1,600 to 1,200 ML/day.



River Operations

- System inflows for October tracking well below average;
- Releases from Hume Reservoir increased to meet downstream demands;
- Pulse of environmental water enters the Murray from the Goulburn.

MDBA total storage decreased by 107 GL this week, with the active storage now 6,254 GL (74% capacity). Inflows to the Murray system so far in October continue to track well below the long-term average (see graph on page six of this report).

At **Dartmouth** Reservoir, the storage volume decreased 24 GL to 3,575 GL (93% capacity). The release is steady at 5,500 ML/day as water is transferred downstream to Hume Reservoir.

Storage at **Hume** Reservoir decreased 58 GL this week to 2,262 GL (75% capacity). Releases from Hume have been increased to 18,800 ML/day in response to rising downstream demand. With further hot temperatures forecast, the release is likely to remain steady at around 18,800 ML/day for the coming week.

At **Yarrowonga** Weir, the release is steady at 10,300 ML/day. Water orders at the major irrigation offtakes increased this week, with diversions at Yarrowonga Main Channel now 1,800 ML/day and Mulwala Canal 7,000 ML/day. Of the diversions at Mulwala Canal, around 1,000 ML/day is water ordered by the MDBA that will be released into the Edward River for use in the Lower Murray. By diverting water via Mulwala Canal in this manner, MDBA is able to deliver more water to the Lower Murray when the Barmah Choke is running at capacity.

In the **Edward-Wakool** system, flows through the Edward and Gulpa offtakes are steady at 1,600 ML/day and 350 ML/day respectively. On the Edward River, the release from Stevens Weir has increased to 2,100 ML/day as the additional water ordered by MDBA passes down the system. Flow in the Wakool River at Wakool-Barham Road is steady at 400 ML/day, whilst the Niemur River at Mallan School is 60 ML/day.

On the **Goulburn** River, the first of two environmental pulses released from Lake Eildon has begun entering the Murray, resulting in the flow at McCoys Bridge increasing to 6,500 ML/day. The flow at McCoys Bridge is forecast to peak at around 8,000 ML/day early next week before beginning to recede (see attached flow advice). Water levels along the Murray will fluctuate noticeably as the pulse moves downstream. River users between Echuca and Mildura are advised to adjust their activities, pumps and moorings accordingly. The water used in this pulse is a combination of environmental allocations and Inter-Valley Transfer (IVT) water, which is water that has been traded from the Goulburn Valley to the River Murray.

At **Torrumbarry** Weir, the diversion into National Channel is currently 2,350 ML/day. The flow in the Murray downstream of Torrumbarry is 10,300 ML/day, and forecast to briefly increase to around 12,500 ML/day early next week as the pulse from the Goulburn River passes. Further downstream, inflow to the Murray from the **Murrumbidgee** River at Balranald is 1,050 ML/day. The flow at Balranald is expected to increase over the coming week to around 1,500 ML/day due to the delivery of IVT water traded from the Murrumbidgee Valley to the Murray.

On the Murray at **Euston**, the pool level remains 20 cm above the Full Supply Level (FSL) of 47.6 m AHD and the downstream release is 8,000 ML/day.

At **Menindee Lakes**, the storage volume has decreased 6 GL to 289 GL (17% capacity). The release has been increased to 200 ML/day at Weir 32 in order to maintain a visible flow downstream at Burtundy during the current period of hot temperatures. A red alert for blue-green algae in the Lower Darling River at Tapio was issued by NSW during the week (see attached media release). Information updates about blue-green algae blooms and red alert level warning areas can be obtained from the Regional Algal Coordinating Committee freecall Algal Information Hotline on 1800 999 457.

At **Wentworth** Weir on the Murray, the pool level is being held 10 cm above FSL. The release from Wentworth Weir is 7,700 ML/day, and forecast to increase to around 8,200 ML/day over the coming week. At **Lock 8**, the weir pool has been raised to its October target level of 80 cm above FSL. The



pool is planned to be held at this height until the end of the month before gradually being lowered to the November target of 40 cm above FSL. The variations in the Lock 8 weir pool are part of a trial by the New South Wales Office of Water to achieve a more natural wetting and drying cycle for the riverine environment.

At **Lake Victoria**, the storage volume decreased 19 GL to 611 GL (90% capacity). The flow to South Australia is currently targeting 9,500 ML/day. This incorporates entitlement flows, environmental water traded from the Goulburn system, and environmental water being used to test the new works on the **Chowilla** Floodplain. Commissioning of the works at Chowilla has been underway since September and has involved the raising of both the Chowilla Creek environmental regulator (Figure 1) and Lock 6 weir pool in order to inundate approximately 3,000 ha of wetlands and floodplain.

The flow over **Lock 1** averaged 5,500 ML/day this week and, at the **Lower Lakes**, the five-day average water level in Lake Alexandrina is 0.68 m AHD. The barrage releases continue to target 2,000 ML/day.



Figure 2 - Testing of the Chowilla Creek environmental regulator has been underway since September (Source: Vic Hughes, MDBA).

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 22 Oct 2014

MDBA Storages	Full Supply Level	Full Supply Volume (GL)	Current Storage Level	Current Storage		Dead Storage (GL)	Active Storage (GL)	Change in Total Storage for the Week (GL)	
	(m AHD)		(m AHD)	(GL)	%				
Dartmouth Reservoir	486.00	3 856	481.61	3 575	93%	71	3 504	-24	
Hume Reservoir	192.00	3 005	187.99	2 262	75%	23	2 239	-58	
Lake Victoria	27.00	677	26.45	611	90%	100	511	-19	
Menindee Lakes		1 731*		289	17%	(-) #	0	-6	
Total		9 269		6 737	73%	--	6 254	-107	
Total Active MDBA Storage							74% ^		

Major State Storages

Burrinjuck Reservoir	1 026	823	80%	3	820	+7
Blowering Reservoir	1 631	999	61%	24	975	-56
Eildon Reservoir	3 334	2 828	85%	100	2 728	-53

* Menindee surcharge capacity – 2050 GL

** All Data is rounded to nearest GL **

NSW takes control of Menindee Lakes when storage falls below 480 GL, and control reverts to MDBA when storage next reaches 640 GL

^ % of total active MDBA storage

Snowy Mountains Scheme

Snowy diversions for week ending 21 Oct 2014

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2014
Lake Eucumbene - Total	2 175	+34	Snowy-Murray	+0	202
Snowy-Murray Component	1 009	+19	Tooma-Tumut	+3	168
Target Storage	1 400		Net Diversion	-3	34
			Murray 1 Release	+9	406

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2014	Victoria	This Week	From 1 July 2014
Murray Irrig. Ltd (Net)	38.7	243	Yarrowonga Main Channel (net)	10.3	72
Wakool Sys Allowance	3.3	14	Torrumbarry System + Nyah (net)	15.1	241
Western Murray Irrigation	0.7	4	Sunraysia Pumped Districts	3.5	19
Licensed Pumps	7.3	62	Licensed pumps - GMW (Nyah+u/s)	0.3	7
Lower Darling	0.4	15	Licensed pumps - LMW	5	48
TOTAL	50.4	342	TOTAL	34.2	389

* Figures derived from estimates and monthly data. Please note that not all data may have been available at the time of creating this report.

** All data above is rounded to nearest 100 ML for weekly data and nearest GL for cumulative data**

Flow to South Australia (GL)

* Flow to SA will be greater than normal entitlement for this month due to the delivery of additional environmental water.

Entitlement this month	170.0 *	
Flow this week	67.4	(9 600 ML/day)
Flow so far this month	192.5	
Flow last month	184.0	

Salinity (EC) (microSiemens/cm at 25° C)

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	20	80	90
Euston	-	-	110
Red Cliffs	130	130	130
Merbein	130	130	140
Burtundy (Darling)	680	640	780
Lock 9	160	160	150
Lake Victoria	210	210	200
Berri	250	260	220
Waikerie	300	290	290
Morgan	290	300	270
Mannum	300	290	330
Murray Bridge	330	340	400
Milang (Lake Alex.)	750	750	740
Poltalloch (Lake Alex.)	470	570	560
Meningie (Lake Alb.)	2 460	2 390	2 270
Goolwa Barrages	900	890	1 170



River Levels and Flows

Week ending Wednesday 22 Oct 2014

River Murray	Minor Flood Stage (m)	Gauge Height		Flow (ML/day)	Trend	Average Flow this Week (ML/day)	Average Flow last Week (ML/day)
		local (m)	(m AHD)				
Khancoban	-	-	-	1 630	F	2 240	3 370
Jingellic	4.0	1.62	208.14	3 870	F	4 710	5 620
Tallandoon (Mitta Mitta River)	4.2	2.77	219.66	5 840	F	5 330	4 860
Heywoods	5.5	3.27	156.90	18 830	R	17 530	13 850
Doctors Point	5.5	3.35	151.82	19 070	R	18 230	14 830
Albury	4.3	2.41	149.85	-	-	-	-
Corowa	3.8	3.52	129.54	17 670	R	17 230	14 020
Yarrowonga Weir (d/s)	6.4	1.70	116.74	10 310	R	10 270	10 020
Tocumwal	6.4	2.31	106.15	9 750	F	9 760	9 550
Torrumbarry Weir (d/s)	7.3	3.28	81.83	10 320	R	8 840	8 050
Swan Hill	4.5	1.52	64.44	7 980	F	8 140	7 900
Wakool Junction	8.8	3.18	52.30	8 510	F	8 600	9 080
Euston Weir (d/s)	8.8	1.64	43.48	7 980	R	8 190	8 960
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	3.04	27.80	7 770	S	8 100	8 580
Rufus Junction	-	3.94	20.87	9 400	R	8 870	8 380
Blanchetown (Lock 1 d/s)	-	0.72	-	6 290	F	5 540	4 390
Tributaries							
Kiewa at Bandiana	2.7	1.40	154.63	1 060	R	1 230	1 360
Ovens at Wangaratta	11.9	8.24	145.92	1 210	R	1 320	1 730
Goulburn at McCoys Bridge	9.0	4.22	95.64	6 570	R	4 240	2 030
Edward at Stevens Weir (d/s)	-	2.08	81.85	2 120	F	1 350	480
Edward at Liewah	-	1.06	56.44	530	F	600	1 000
Wakool at Stoney Crossing	-	1.47	54.97	540	F	590	650
Murrumbidgee at Balranald	5.0	1.46	57.42	1 050	S	1 030	1 100
Barwon at Mungindi	-	2.84	-	0	F	0	0
Darling at Bourke	-	3.87	-	0	F	0	10
Darling at Burtundy Rocks	-	0.65	-	20	F	40	40

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	6 770	7 550
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Weirs and Locks Pool levels above or below Full Supply Level (FSL)

Murray	FSL (m AHD)	u/s	d/s		FSL (m AHD)	u/s	d/s
Yarrowonga	124.90	-0.14	-	No. 7 Rufus River	22.10	+0.05	+1.59
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.42	+0.19
No. 15 Euston	47.60	+0.20	-	No. 5 Renmark	16.30	+0.09	+0.28
No. 11 Mildura	34.40	+0.04	+0.26	No. 4 Bookpurnong	13.20	+0.01	+0.87
No. 10 Wentworth	30.80	+0.10	+0.40	No. 3 Overland Corner	9.80	+0.03	+0.59
No. 9 Kulnine	27.40	+0.15	+0.84	No. 2 Waikerie	6.10	+0.40	+0.60
No. 8 Wangumma	24.60	+0.81	+0.21	No. 1 Blanchetown	3.20	+0.41	-0.03

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.68
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Barrages

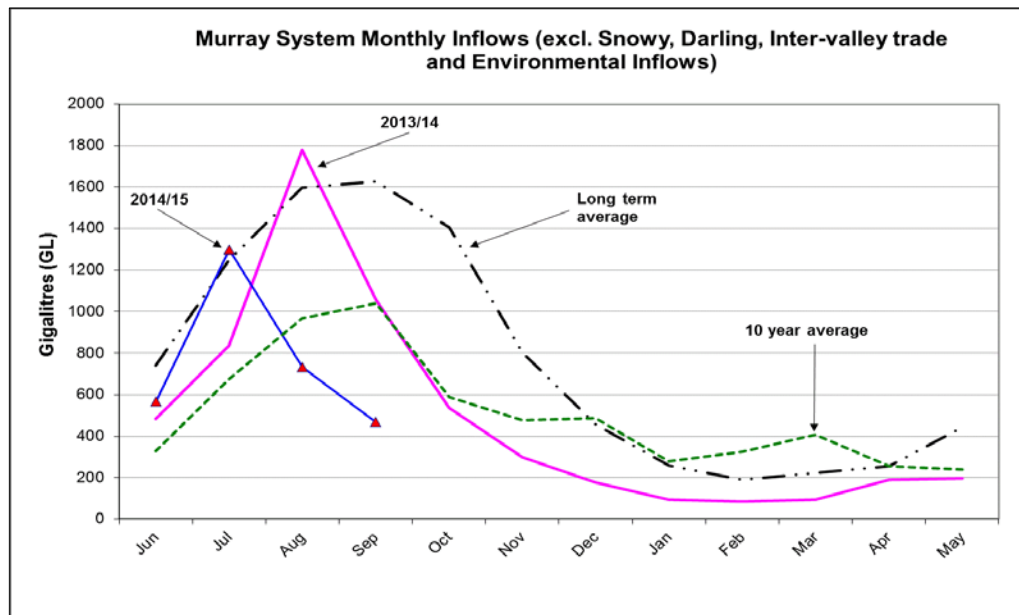
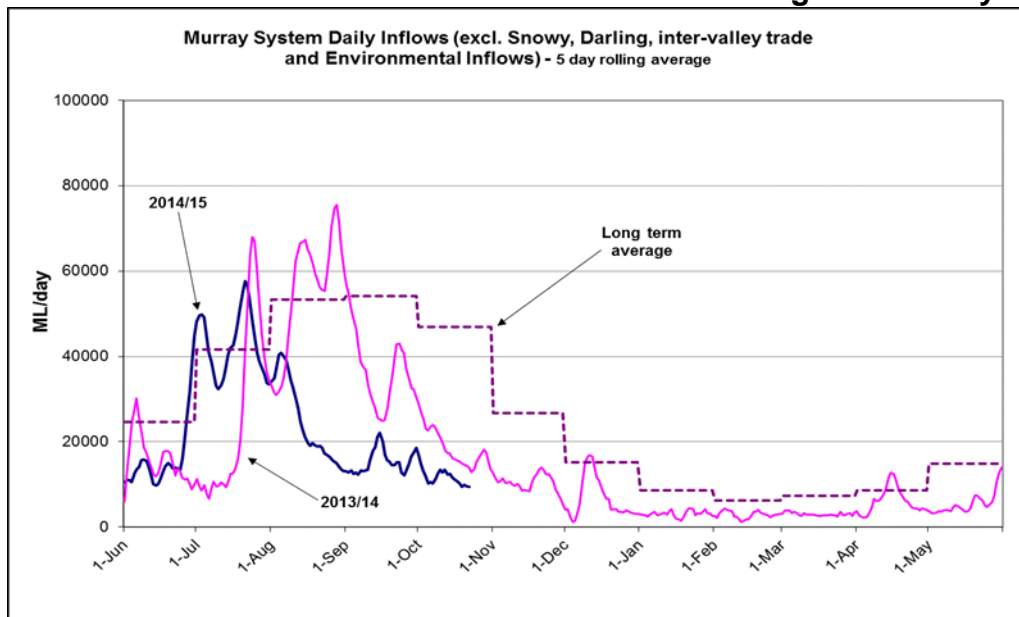
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.65	4	-	Open
Mundoo	26 openings	0.66	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.67	4	Open	Open

AHD = Level relative to Australian Height Datum, i.e. height above sea level



Week ending Wednesday 22 Oct 2014



State Allocations (as at 22 Oct 2014)

NSW - Murray Valley

High security	97%
General security	39%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	40%

Victorian - Goulburn Valley

High reliability	100%
Low reliability	0%

NSW - Lower Darling

High security	100%
General security	100%

South Australia - Murray Valley

High security	100%
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NSW : <http://www.water.nsw.gov.au/Water-management/Water-availability/Water-allocations/Water-allocations-summary/water-allocations-summary/default.aspx>
 VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>
 SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>

Flow advice



21 October 2014

Murray flows to fluctuate with spring e-water

Communities along the River Murray between Echuca and Sunraysia are reminded to consider adjusting their activities as river levels start to vary this week until December 2014.

The changes are occurring as water enters the Murray from the Goulburn River following the release of two environmental water pulses from Lake Eildon.

The first pulse has begun to enter the River Murray at Echuca and is expected to peak early next week. As the water moves along the river, levels will rise and remain higher for three to four weeks, before receding.

If conditions remain dry, levels at Echuca could rise by about 0.5 metres, to 87.4 metres (Australian Height Datum), and downstream of Torrumbarry Weir the river is forecast to reach a peak—about four metres at the gauge—at the end of October.

The second pulse is expected to increase flows at Echuca in late November.

River users between the Echuca district and the upper reaches of Mildura Weir pool need to be aware that levels will fluctuate noticeably during this period and should adjust their activities, pumps and moorings accordingly.

Further updates will be provided as required through the media and the MDBA's river operations weekly report, which can be found at www.mdba.gov.au/river-data/current-information-forecasts/weekly-report

The environmental pulses will use Commonwealth Environmental Water Holder allocations to benefit fish spawning and vegetation on the Goulburn River, as well as supporting downstream watering actions throughout the mid Murray, lower Murray, Lower Lakes and the Coorong. In addition to the environmental water, the pulses will also include delivery of some water traded from the Goulburn Valley to the River Murray.

The planned flows in the Goulburn River will be managed by Goulburn Broken Catchment Management Authority in collaboration with Goulburn-Murray Water, with releases made in line with the Victorian Environmental Water Holder's Seasonal Watering Plan 2014-15.

ENDS

For more information, contact the MDBA Media office at media@mdba.gov.au or 02 6279 0141

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New South Wales
Government

ALGAL ALERT BULLETIN

Sunraysia Regional Algal Coordinating Committee

Friday, 17 October 2014

Red alert issued for Blue Green Algae in the Lower Darling River at Tapio

The Sunraysia Regional Algal Coordinating Committee today issued a red alert warning for toxic blue green algae in the lower Darling River at Tapio.

Sunraysia RACC Chair, Owen Russell, said that the high readings taken here were not surprising given the warm temperatures and reduced inflows.

Mr Russell said that this red alert level warning indicates that waters are unsuitable for recreational use or primary contact by domestic users and may also pose a threat to livestock.

“Residents are advised to avoid contact with the raw water supply too.”

Wentworth Shire Council has indicated that water taken from town water supply systems is safe for human consumption.

The species of blue-green algae identified are potentially toxic and may cause gastroenteritis in humans if consumed and skin and eye irritations after contact. Boiling the water does **not** inactivate algal toxins.

People are advised not to enter the water, not to drink untreated water or bathe in water drawn from the river while this red alert level warning is in place.

Livestock owners are reminded to continue to check stock water supplies for blue-green algae and to remove stock from foreshores where surface scum is visible or blue-green algae are suspected.

People should not eat mussels or crayfish from red level warning areas. Any fish caught should be cleaned and washed thoroughly in uncontaminated water and any internal organs disposed of before consumption.

Information updates about blue-green algae blooms and red level warning areas can be obtained from the Regional Algal Coordinating Committee freecall Algal Information Hotline on 1800 999 457.