Submission Number: 617.1
Date Received: 14/03/2011

Supplementary Submission to Regional Australia committee

Being unable to attend any of the committee's remaining scheduled pubic meetings, I thought I should add a few points to my original submission dated 25 February.

(a) Excessive diversions from rivers

The final graphs in my submission attempted to show how easy it was to demonstrate (without resorting to a complex model with inadequately disclosed inputs) that recent "end flows" of some major rivers (eg Murrumbidgee) were unduly low because of the combination of drought and "excessive allocations" for irrigation. I have since located data to take this analysis further – but I don't have data for actual annual "diversions".

The following graph is on a similar basis to graphs IV and V in my original submission. It shows available data on flows at the "NSW Water"[1] measuring station nearest to the end of the Namoi and Macquarie rivers (ie near Walgett and at Carinda – which is downstream of the Macquarie marshes). It also shows levels in major storages and rainfall at a representative point downstream of the major storages. As was the case for the Murrumbidgee, it shows that "end river" flows were negligible for most of the period from 2001 to 2010 – and more generally, significant end river flows are usually limited to periods when storages are full – and/or there are major rains "downstream" from the storages. Thus, the Namoi and Macquarie seem good candidates for "strategic buybacks" of water allocations suggested in the commitees interim report. Less comprehensive data suggest the Gwydir and Castlereagh may also be appropriate targets. I suspect that case is stronger for some border rivers but have not yet isolated the appropriate data.

(b) Updating

I have added data on the Namoi and Macquarie to the attached "Summary table" – which has also been updated to include other data obtained since preparing my original submission. "Flows" data for 2010/11 now cover the 8 months to end February and the record summer inflows. Many "year to date" totals for 2010/11 are still increasing rapidly - as peak flows from the Victorian floods are about Murray Bridge. Peaks flows from the Queensland floods flows are approaching Wilcannia.

Latest data on water quality and salinity shows that the adverse "spikes" in these items associated with the Victorian floods are now receding – though "full recovery" will take longer. This remains consistent with the observations in my main submission that, once the system settles down after the recent floods, salinity in most parts Murray system and lower lakes are likely to be at or near the lowest levels on record.

As also noted in my original submission, I would be happy to assist the committee in whatever manner I reasonably can. This includes supplying any updating, or further details, the committee may require in respect of my submission.

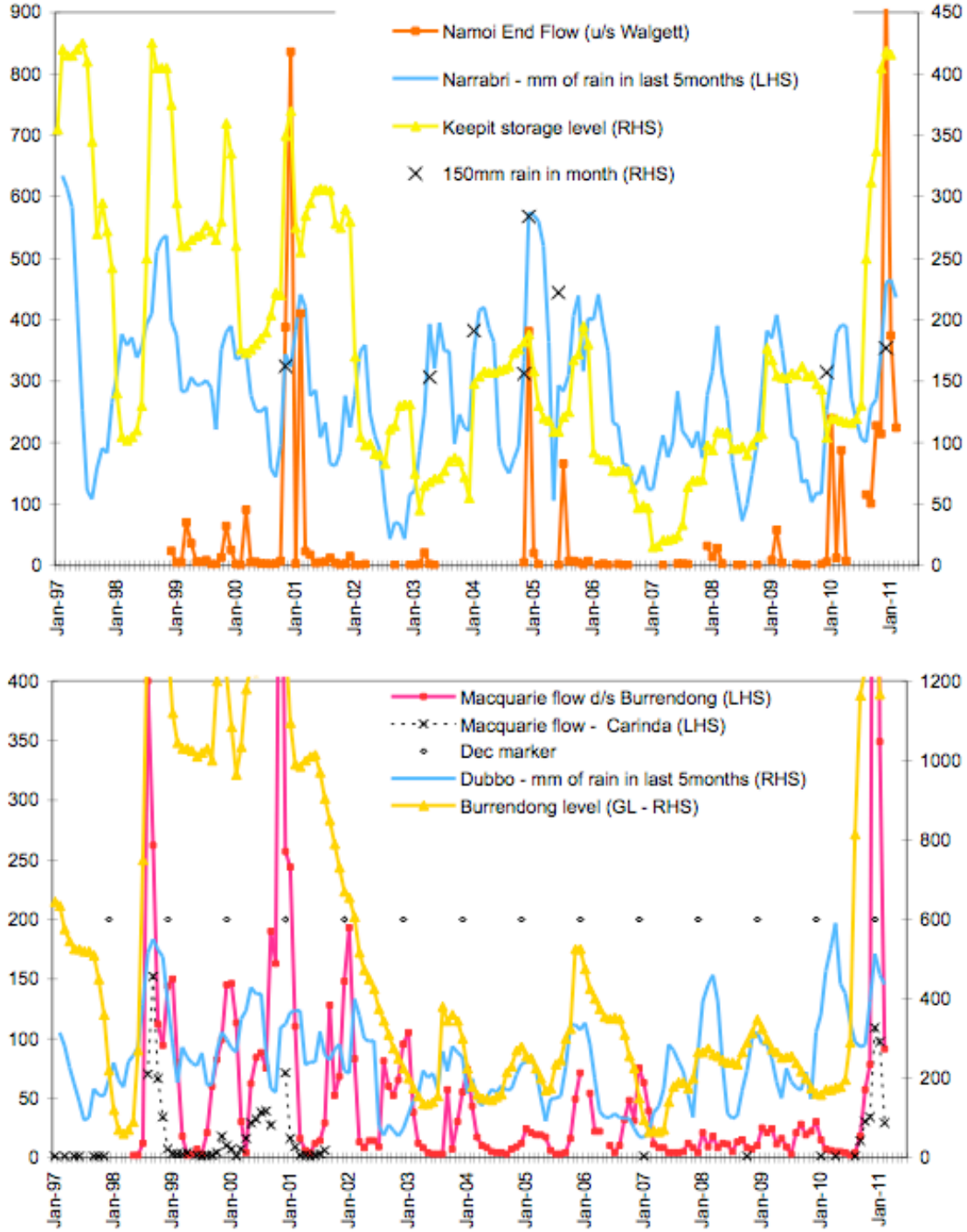
Rob Foster

14 March 2011

Attachments (2): Graph Namoi and Macquarie, Summary Table

[1] Unlike anything readily accessible from the MDBA, the NSW Water website gives ready access to a huge amount of historical data – with notes on "quality" of the data.

Namoi and Macquarie - Flows and Storage levels



Flows and storage levels in Gigalitres. Storage levels shown on right hand scale - the top of which is approximately equal to the capacity of the relevant dams. Flows less than .5GL per month not plotted. Monthly data of Namoi flow u/s of Walget only avaialable from Dec 1998.

SUMMARY TABLE

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1	As per Model used				Last	Last														As proposed for red-	
2	in guide to Plan				100+ yrs	40 yrs	.00/01	.01/02	.02/03	.03/04	.04/05	.05/06	.06/07	.07/08	.08/09	.09/10	.10/11		average	uctions in Diversions	
3	annual	Diversn	flow														YTD/latest		.2000/10	of 3000gl	of 4000gl
4	Inflow	limit	at end	**Inflows**																	
5	15959			Inflows EXcl. Menindee & Snowy.		8930	9898	4423	2085	5563	4878	6173	1067	2170	1928	3586	(15000)		4177		
6				Snowy releases from Murray 1		1234	1210	855	1309	939	1169	1215	1027	711	888	1114	(1330)		1044		
7				Inflows into Menindee		2277	2686	93	52	482	291	171	21	762	181	2180	(1750)		692		
8			1021	Darling flow at Bertundy		1256	1631	1048	23	56	36	16	17	142	267	546	(1900)		378	1276	1316
9			653	to Darling from Namoi (at Walgett)		na	1700	45	32	3	410	200	7	97	116	460	(2500)		307	696	709
10				to Darling from Macquarie (Carinda)		120	na	30	na	na	2	3	2	na	2	3	(300)				
11																					
12				**Diversions in year to June**																	
13		1721		NSW Murray			2342	2164	1739	1289	1276	1726	685	236	368	470	(720)		1230	1247	1086
14		1656		Vic Murray			1645	1833	942	1387	1497	1622	1575	679	696	900	(450)		1278	1214	1064
15		665		SA Murray			662	627	657	696	560	462	357	535	574				570	492	433
16		4042		**Total Murray (includes SA)**			4420	4624	3338	3372	3333	3810	2617	1450	1638				3178	2943	2583
17		2060		Murrumbidgee			2781	2384	1833	1803	1645	2232	985	530	621				1646	1396	1190
18		1593		Goulburn			1468	1618	1043	1564	1504	1524	642	675	624				1185	1151	992
19		7695		Total diversions (sum of above)			8669	8626	6214	6739	6482	7566	4244	2655	2883				6009	5490	4765
20																					
21				**River flows**																	
22				Outflow from Hume		4423	4888	3585	4392	3092	2979	3775	3580	1311	1737	1844			3118		
23	1804		1708	from Ovens (Wangaratta)	1549	1591	2103	877	362	1379	1254	1465	132	521	424	864	(3250)		938	1716	1717
24	3559		1600	from Goulburn (near Murray)		1374	1109	220	171	494	411	470	146	205	131	184	(2750)		354	1785	1937
25	4791		1593	from Murrumbidgee (Bal-ranald)	1811	1146	589	284	130	123	125	179	172	138	105	187	(1950)		203	2109	2325
26																					
27				Murray at Euston	8139	6466	5514	1934	2479	2763	2731	3211	2096	1574	1479	1948	(8500)		2573		
28				Murray flow to S.A.	9029	6808	6543	2294	2082	1850	2397	1405	960	1175	1693		(9400)		2220		
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30				Murray flow at Blanchetown			5802	1659	1135	1603	1306	1965	956	430	566	1023	(7500)		1645		
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35				Dartmouth		2122	3092	3214	1148	1858	1717	2487	486	664	804	1252	(2180)	(3906)	1672		
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38				Menindee		1173	2030	400	70	332	330	269	79	541	228	1522	(1700)	(1731)	580		
39				MDBA dams INCl Menindee		4857	6711	4557	2023	2741	3288	3793	1234	1974	1589	3924	(7300)	(9352)	3183		
40				% of capacity		52%	72%	49%	22%	30%	35%	41%	13%	21%	17%	42%	79%		34%		
41				Burrinjuck		553	412	258	72	404	249	345	319	426	382	421	(1000)	(1026)	329		
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43				Eildon		n.a.	1081	711	377	673	940	748	354	474	433	916	(2540)	(3334)	1048		
44				Major 7 dams (listed above)			7034	5538	2595	3573	4433	5489	2223	2941	2718	4484	(12460)	(15343)	4862		
45				% capacity		n.a.	46%	36%	17%	23%	29%	36%	14%	19%	18%	29%	81%		52%		
46				change (major 7)				1496	2943	-978	-859	-1056	3266	-718	223	-1766					
47																					
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49				at Swan Hill		252	230	131	104	97	115	79	81	71	54	102	280		106		
50				at Morgan		574	513	631	423	417	360	369	510	472	506	282	390		448		
51				at Milang (Lake Alexandrina)		1142	n.a.	1049	1159	1327	1348	1168	2003	3956	5448	4194	570		2406		
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Notes: Unless otherwise noted, all flows and levels data are in gigalitres for the year ending June. Salinity is average daily microsiemens per cm for calendar year.
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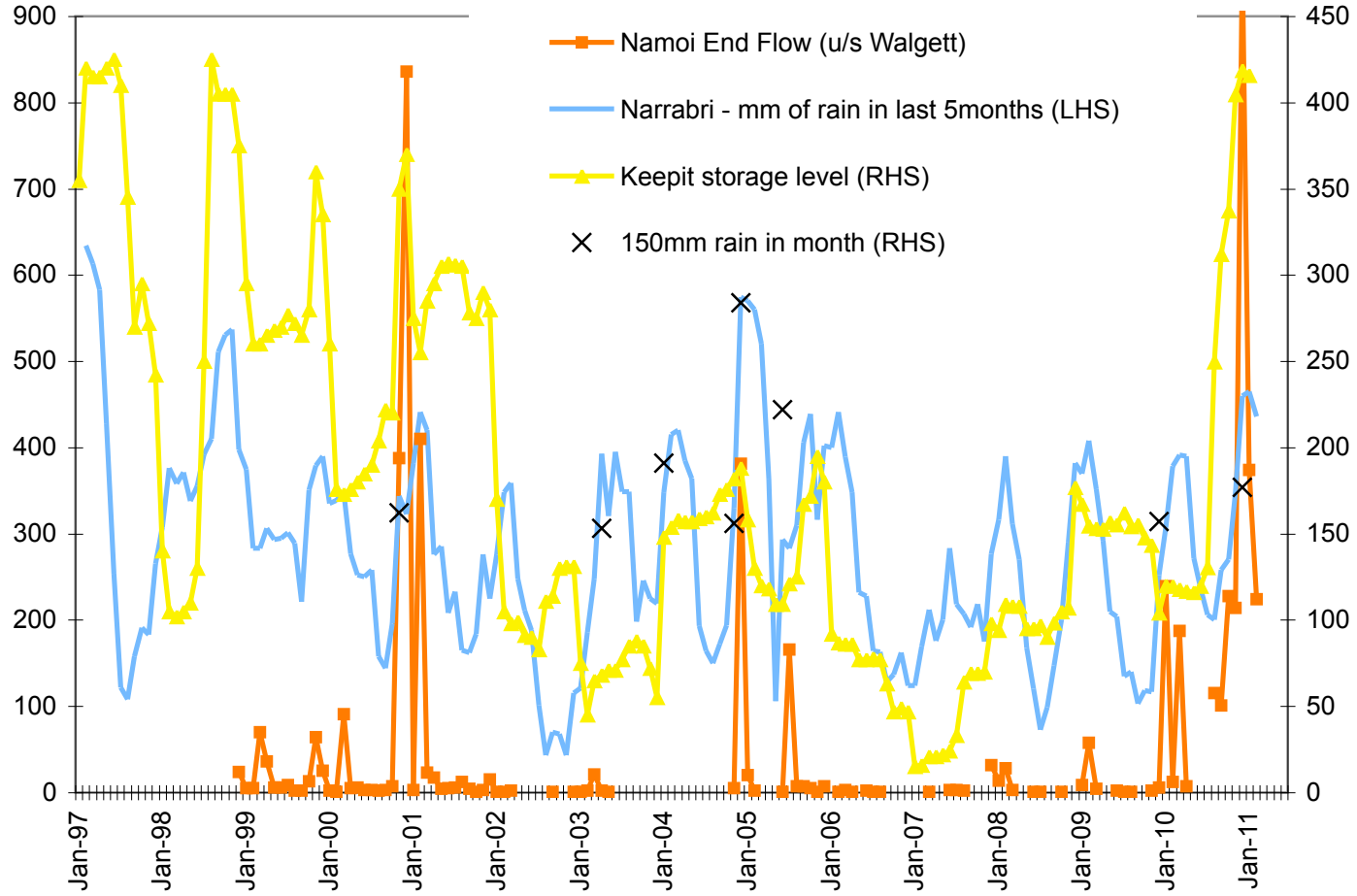

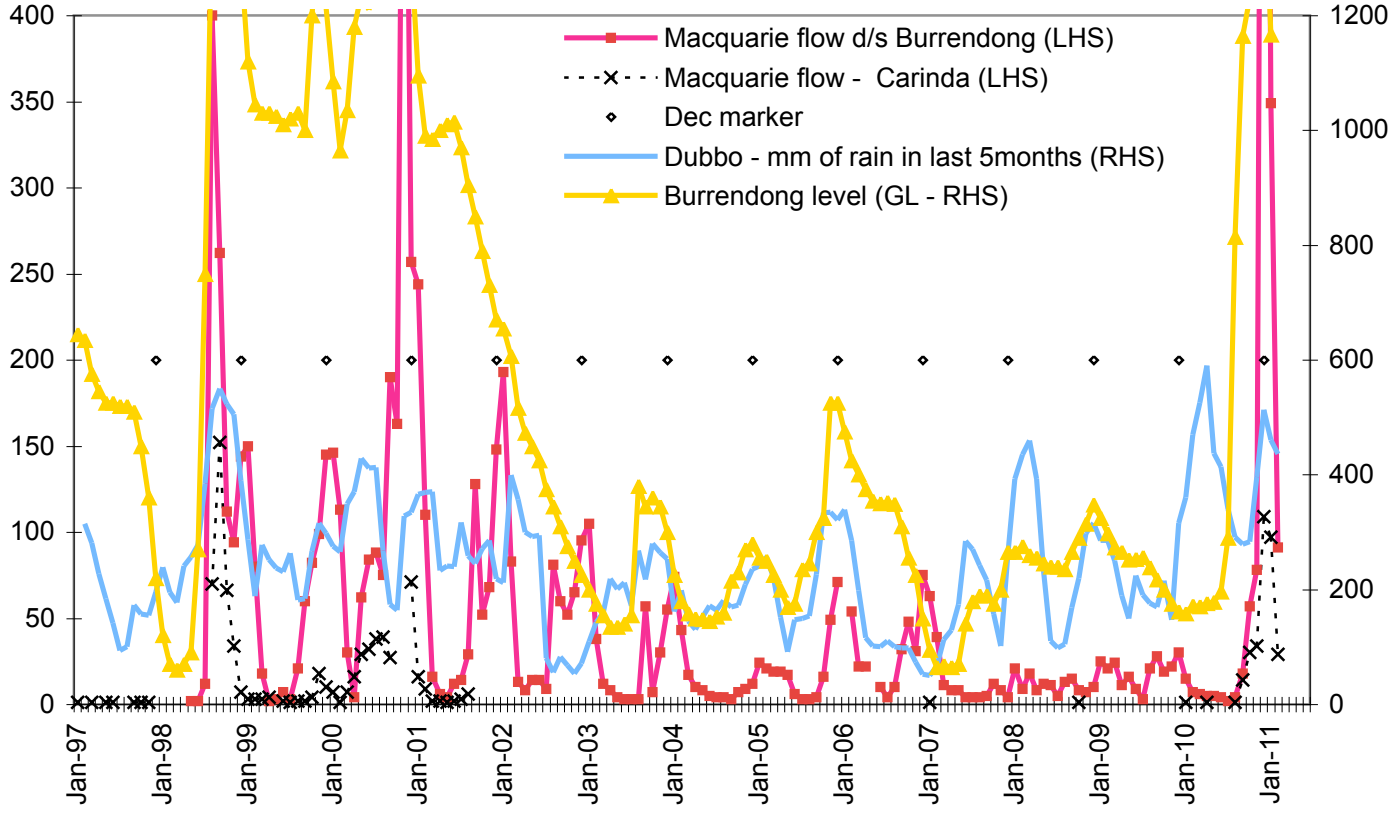

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