

# Dumaresq-Barwon Border Rivers Commission

Annual Statistics 2006-07





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The Border Rivers Commissioners would like to record their sincere thanks to the staff from SunWater, State Water, the Queensland Department of Natural Resources and Water and the New South Wales Department of Water and Energy who provided the information and statistics for this report.

Please note that as from 1 July 2003 the Commission's reporting period for statistics is 1 July to 30 June rather than the former reporting period of 1 October to 30 September.

# Water infrastructure

**Table 1 - Key features of Border Rivers Commission works**

Name	Stream	AMTD (km)	Nearest town/s	Description	F.S.L above bed (EL)	Storage capacity (ML)	Date completed
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## DAMS

Glenlyon Dam	Pike Creek	6.4	Stanthorpe Tenterfield Texas	Earth & rockfill	47.4	254,000	1976
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## WEIRS

Boggabilla Weir	Macintyre River	283.5	Boggabilla Goondiwindi	Reinforced concrete and earthfill	8.5	5,850	1991
Boomi Weir	Macintyre River	147.0	Boomi	Steel sheetpiling	4.1	354	1960
Bonshaw Weir	Dumaresq River	126.7	Texas	Steel sheetpiling	2.9	617	1953/58
Coomonga Weir	Coomonga Creek		Toobeah	Steel sheetpiling			1986
Cunningham Weir	Dumaresq River	67.9	Texas	Timber piled (written-off)	4.6	543	1954
Glenarbon Weir	Dumaresq River	57.0	Yelarbon	Steel sheetpiling	2.7	353	1959
Goondiwindi Weir	Macintyre River	268.8	Goondiwindi	Timber crib (fish ladder added)	2.8	1,800	1942
Mungindi Weir	Barwon River	4.8	Mungindi	Steel sheetpiling	3.6	730	1936/65

## REGULATORS

Boomi Regulator	Boomi River		Boomi	Steel sheetpiling with hardwood dropboards			1960
Newinga Regulator	Barwon to Weir River flood channel		Talwood	Reinforced concrete with aluminium dropboards			1993
Regulator No 1	Balonne Minor	163.5	Dirranbandi	Steel sheetpiling with rock protection			1974
	Culgoa River	162.6	Dirranbandi	Steel sheetpiling with rock protection			1974
Regulator No 2	Balonne Minor	128.9	Dirranbandi	Steel sheetpiling with rock protection			1974
	Donnegri River	14.9	Dirranbandi	Steel sheetpiling with rock protection			1974
Regulator No 3	Ballandool River	91.4	Dirranbandi	Steel sheetpiling with rock protection			1974
	Bokhara River	79.8	Dirranbandi	Steel sheetpiling with rock protection			1974
Regulator No 4	Birrie River	274.7	Goodooga	Steel sheetpiling with rock protection			1974
	Bokhara River	276.2	Goodooga	Steel sheetpiling with rock protection			1974

## OTHER

Little Weir River Diversion	Barwon River		Mungindi	Excavated channel and box culverts			1986
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**Table 2 - Glenlyon Dam monthly storage volumes (megalitres)**

End of month	2005-06	2006-07
July	61,212	69,603
August	60,458	68,493
September	59,448	67,640
October	60,112	63,624
November	64,769	69,693
December	70,566	53,881
January	73,604	40,070
February	74,235	34,587
March	72,742	36,489
April	72,316	34,374
May	70,930	33,107
June	69,879	33,898

(1) Storage volumes in this table are at 24:00 hrs on the last day of each month as recorded by GS 416315A

**Table 3 - Glenlyon Dam monthly releases / spillway flows (megalitres)**

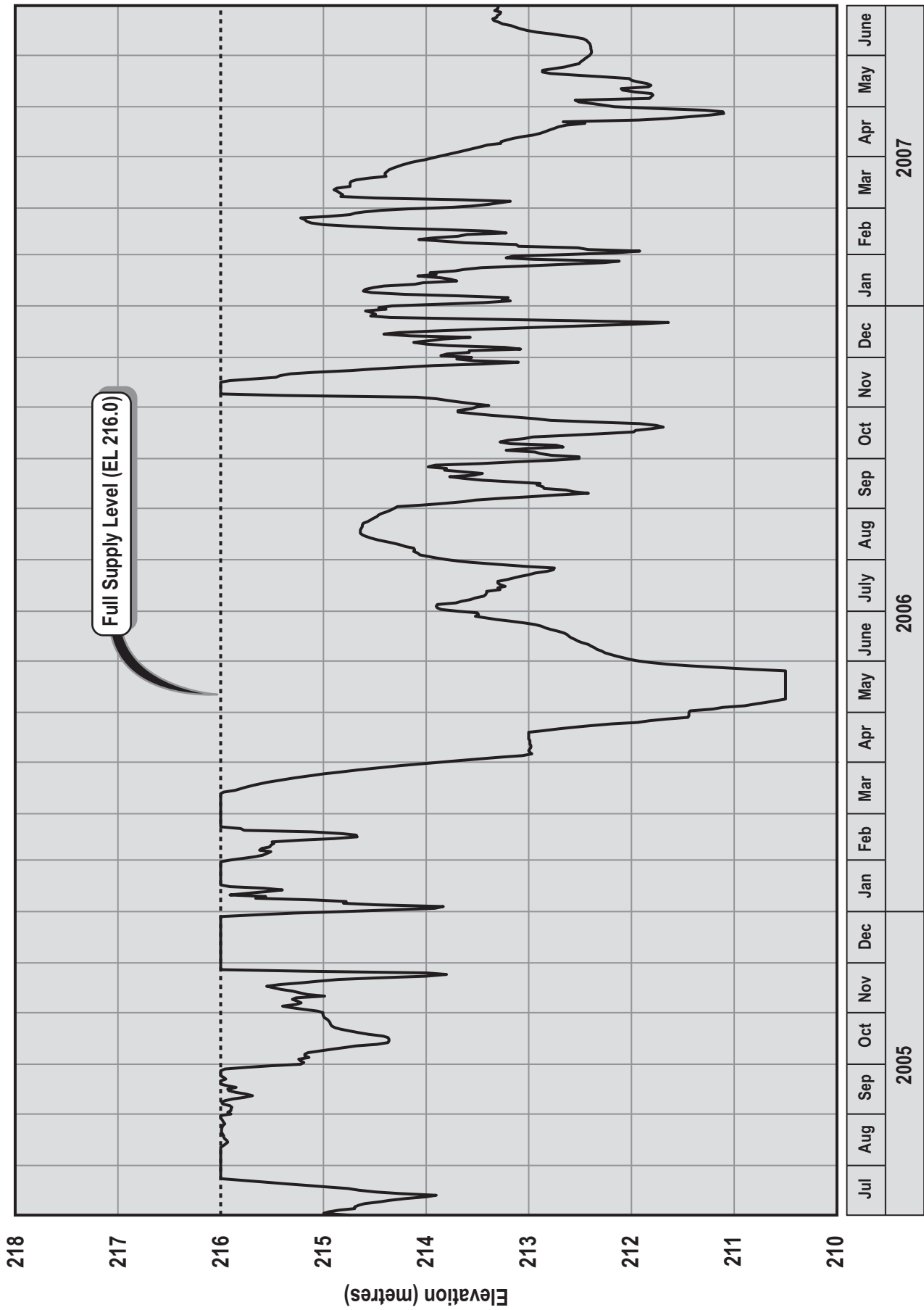
Month	2005-06		2006-07	
	Release	Spillway flows	Release	Spillway flows
July	0	0	364	0
August	574	0	909	0
September	968	0	726	0
October	2,024	0	3,850	0
November	49	0	713	0
December	13	0	18,274	0
January	2,236	0	14,773	0
February	4	0	4,984	0
March	563	0	844	0
April	23	0	1,709	0
May	903	0	836	0
June	1,161	0	57	0

(1) The monthly releases in this table are the flows as recorded at GS 4163109B less any spillway flows.

**Table 4 - Glenlyon Dam recreation statistics**

1 July 05 - 30 June 06		1 July 06 - 30 June 07	
Visitors	Camp sites occupied	Visitors	Camp sites occupied
55,730	4,352	53,960	4,965

**Figure 1 - Boggabilla Weir Storage Levels 2005-2007**



# Resource allocation, sharing and use

**Table 5 - Irrigation, off-allocation, waterharvesting, industrial & town water licences and offstream storages - Border Rivers regulated section**

	Number of licences		Allocations (Megalitres)		Off-stream Storages (Megalitres)	
	NSW	QLD	NSW	QLD	NSW	QLD
Pike Creek and Dumaresq River from Glenlyon Dam to Bonshaw Weir	21	28	5,482	6,630	0	0
Dumaresq River from Bonshaw Weir to Cunningham Weir (excluding Texas town)	17	15	6,978	6,046	0	0
Texas Town		1		270		
Dumaresq River from Cunningham Weir to Macintyre River junction (excluding Yelarbon town)	13	24	2,831	6,478	400	6,300
Yelarbon Town		1		106		
Macintyre River from Dumaresq River junction to Goondiwindi Weir (excluding Goondiwindi & Boggabilla towns)	12	61	60,386	32,493	29,150	125,850
Boggabilla Town	1		200			
Goondiwindi Town		1		1,800		
Macintyre River from Goondiwindi Weir to Boomi Weir	17	8	123,139	9,265	79,915	25,210
Macintyre River and Barwon River from Boomi Weir to Mungindi Weir (excluding Mungindi town)	11	21	48,629	21,578	53,600	119,370
Mungindi Town	2		300			
<b>Totals</b>	<b>94</b>	<b>160</b>	<b>247,945</b>	<b>84,666</b>	<b>163,065</b>	<b>276,730</b>

**Table 6 - Water use from the Border Rivers 1 July 05 - 30 June 06 (megalitres)**

	On-allocation			Off-allocation		
	NSW	QLD	Total	NSW	QLD	Total
Pike Creek and Dumaresq River from Glenlyon Dam to Bonshaw Weir	1,770	864	2,634	918	360	1,278
Dumaresq River from Bonshaw Weir to Cunningham Weir (excluding Texas town)	1,563	1,178	2,741	713	579	1,292
Texas Town		197	197			0
Dumaresq River from Cunningham Weir to Macintyre River junction (excluding Yelarbon town)	656	3,316	3,972	348	2,083	2,431
Yelarbon Town		72	72			0
Macintyre River from Dumaresq River junction to Goondiwindi Weir (excluding Goondiwindi & Boggabilla towns)	20,799	6,703	32,285	4,741	5,856	10,597
Boggabilla Town	146	0	146			0
Goondiwindi Town		2,133	2,133			0
Macintyre River from Goondiwindi Weir to Boomi Weir	55,641	1,198	62,409	9,148	4,291	13,439
Macintyre River and Barwon River from Boomi Weir to Mungindi Weir (excluding Mungindi town)	27,004	12,821	42,037	6,254	15,311	21,565
Mungindi Town	248	0	248			0
<b>Totals</b>	<b>107,827</b>	<b>28,482</b>	<b>148,874</b>	<b>22,122</b>	<b>28,480</b>	<b>50,602</b>

(1) The above water use statistics include the use of water released into the Border Rivers from Pindari Dam which is owned and operated by New South Wales and Coolmunda Dam which is owned and operated by SunWater. Water temporarily transferred from one state to the other is reported as being use in the state of origin not the state of destination.

**Table 7 - Water use from the Border Rivers 1 July 06 – 30 June 07 (megalitres)**

	On-allocation			Off-allocation		
	NSW	QLD	Total	NSW	QLD	Total
Pike Creek and Dumaresq River from Glenlyon Dam to Bonshaw Weir	2,682	1,296	4,020	0	0	0
Dumaresq River from Bonshaw Weir to Cunningham Weir (excluding Texas town)	3,084	3,512	6,714	0	0	0
Texas Town		214	214			
Dumaresq River from Cunningham Weir to Macintyre River junction (excluding Yelarbon town)	1,349	2,419	4,080	0	0	0
Yelarbon Town		109	109			
Macintyre River from Dumaresq River junction to Goondiwindi Weir (excluding Goondiwindi & Boggabilla towns)	35,561	13,990	50,816	0	0	0
Boggabilla Town	184	0	184			
Goondiwindi Town		2,059	2,059			
Macintyre River from Goondiwindi Weir to Boomi Weir	56,185	6,492	63,801	0	0	0
Macintyre River and Barwon River from Boomi Weir to Mungindi Weir (excluding Mungindi town)	24,861	13,406	42,040	0	0	0
Mungindi Town	298	0	278			
<b>Totals</b>	<b>124,204</b>	<b>43,497</b>	<b>174,315</b>	<b>0</b>	<b>0</b>	<b>0</b>

(1) The above water use statistics include the use of water released into the Border Rivers from Pindari Dam which is owned and operated by New South Wales and Coolmunda Dam which is owned and operated by SunWater. Water temporarily transferred from one state to the other is reported as being use in the state of origin not the state of destination.

(2) During 2006-07 Qld water users took 402 megalitres of off-allocation water under the trial water sharing rules permitting small enterprises upstream of the Macintyre/Dumaresq junction to pump from certain small unregulated inflows for direct irrigation. No water was taken in NSW under that same rule.

**Table 8 – Summary of resource assessments (Border Rivers) 1 July 05 – 30 June 06 (gigalitres)**

Bulk Accounts	Queensland				New South Wales			
	Account balance 1/7/05	Total use/loss for year	Total distribution for year	Account balance 1/7/06	Account balance 1/7/05	Total use/loss for year	Total distribution for year	Account balance 1/7/06
	(a)	(b)	(c)	(a)-(b)+(c)	(a)	(b)	(c)	(a)-(b)+(c)
Storage Loss (Glenlyon Dam)	3.69	10.51	12.93	6.11	1.81	2.13	1.00	0.68
Storage Loss (Pindari Dam)	-	-	-	-	13.79	11.88	12.10	14.01
Essential Supplies (minimum release)	1.00	0.00	0.00	1.00	3.83	23.49	25.20	5.54
Essential Supplies (other)	6.43	2.13	2.60	6.90	22.80	2.10	4.00	24.70
Essential Supplies Delivery Loss	2.41	0.64	0.90	2.67	9.19	0.63	1.74	10.30
General Use	23.75	22.37	34.33	35.71	129.82	108.54	99.34	120.62
General Use Delivery Loss	6.45	6.73	10.98	10.70	37.03	32.57	31.72	36.18

**Table 9 – Summary of resource assessments (Border Rivers) 1 July 06 – 30 June 07 (gigalitres)**

Bulk Accounts	Queensland				New South Wales			
	Account balance 1/7/06	Total use/loss for year	Total distribution for year	Account balance 1/7/07	Account balance 1/7/06	Total use/loss for year	Total distribution for year	Account balance 1/7/07
	(a)	(b)	(c)	(a)-(b)+(c)	(a)	(b)	(c)	(a)-(b)+(c)
Storage Loss (Glenlyon Dam)	6.11	8.31	4.78	2.58	0.68	2.06	3.14	1.76
Storage Loss (Pindari Dam)	-	-	-	-	14.01	8.84	2.51	7.68
Essential Supplies (minimum release)	1.00	0.00	0.00	1.00	5.54	1.88	2.42	6.08
Essential Supplies (other)	6.90	2.49	2.79	7.20	24.70	16.18	16.19	24.71
Essential Supplies Delivery Loss	2.67	0.82	0.88	2.73	10.30	5.33	5.32	10.29
General Use	35.71	40.71	9.14	4.14	120.62	128.71	33.21	25.12
General Use Delivery Loss	10.70	12.22	2.76	1.24	36.18	38.63	9.99	7.54



**Table 10 - Access opportunities to unregulated flows from the Border Rivers**

Month	Number of days			
	1 July 05 – 30 June 06		1 July 06 – 30 June 07	
	Glenlyon to Goondiwindi	Goondiwindi to Mungindi	Glenlyon to Goondiwindi	Goondiwindi to Mungindi
July				
August				
September				
October				
November			(See Note 2)	
December	1½	1½		
January				
February	1	1		
March				
April				
May				
June			(See Note 2)	

- (1) Generally NSW irrigators are granted 3 percent off-allocation pumping for each 1 day that access is permitted to unregulated flows.  
(2) Qld water users were permitted to pump for 9 days in November 2006 and 15 days in June 2007 under the trial water sharing rules permitting small enterprises upstream of the Macintyre/Dumaresq junction to pump from certain small unregulated inflows for direct irrigation.

**Table 11 – Irrigated production in the Border Rivers (hectares)**

Crop	2005-06			2006-07		
	NSW	Qld	TOTAL	NSW	Qld	TOTAL
Cotton	21884	22,835	44,719	18,139	9,894	28,033
Lucerne	805	433	1,238	484	102	586
Cereals	550	2,040	2,590	2,385	1845	4,230
Peanuts	310	60	370	80	60	140
Fodder crops	710	81	791	570	276	846
Horticultural crops	55	105	160	55	43	98
Other	295	170	465	95	40	135
<b>Total</b>	<b>24,609</b>	<b>25,724</b>	<b>50,333</b>	<b>21,808</b>	<b>12,260</b>	<b>34,068</b>

- (1) The irrigated production statistics in this table include the crops grown on properties which take regulated/supplemented water from the Border Rivers. Crops grown on properties not supplied at least in part from the Border Rivers are not included in this table.  
(2) The statistics for each year include the winter crop areas planted during the year.

**Table 13 - Groundwater licences in the Border Rivers Groundwater Area**

	NSW <sup>(1)</sup>	Qld
Issued allocation/entitlement	15,502 <sup>(2)</sup>	14,421 <sup>(4)</sup>
Allocation/entitlement issued, bores constructed	14,426	14,421 <sup>(4)</sup>
Allocation/entitlement issued, bores not constructed	976 <sup>(3)</sup>	0
Number of licences/entitlements	28	26
Number of bores constructed	50	40
Number of applications outstanding	0	6

- (1) The figures provided for NSW are for the area defined as the Border Rivers Alluvium GWMA 022 (Zones 1 and 2).  
(2) The total issued entitlement figure for NSW does not include two licenses (Zone 2) under review regarding their assignment of groundwater in this system (approx. 1000ML) or one non LAS bore (Zone 2) needing assignment of entitlement.  
(3) The figure comprises three lodged applications that have been assigned an allocation.  
(4) The Qld figures do not include the allocation issued in the shallow aquifer, which is about 3,500 ML.

**Table 13 - Groundwater use in the Border Rivers Groundwater Area (megalitres)**

1 July 05 – 30 June 06		1 July 06 – 30 June 07	
NSW	Qld	NSW	Qld
5,377	5,260	6,927	8,048

# Resource management

**Table 14 - Beardmore Dam compensation inflow, storage and releases**

Month	2005-06			2006-07		
	Inflow (ML)	Release (ML)	Storage at end of month (ML)	Inflow (ML)	Release (ML)	Storage at end of month (ML)
June	4,240	0	13,900	0	0	720
July	3,480	16,660	650	0	0	700
August	990	1,600	0	0	0	670
September	0	0	0	0	0	630
October	2,970	0	2,940	0	0	470
November	13,140	13,450	1,690	3,200	0	3,500
December	17,420	16,750	5,260	90	2,900 <sup>(3)</sup>	380
January	3,570	6,850 <sup>(1)</sup>	3,520	11,370	1,220	9,980
February	1,960 <sup>(2)</sup>	0	890	6,160	8,900	6,580
March	8,210	8,450	0	10,460	15,500	1,560 <sup>(4)</sup>
April	780	0	770	0	1,520	30
May	0	0	740	0	0	30
June	0	0	720	260	0	290
<b>Totals</b>	<b>56,750</b>	<b>63,740</b>		<b>31,540</b>	<b>30,040</b>	

(1) Includes 1950ML of allocation water temporarily transferred to compensation flow.

(2) 1950ML deducted from inflow to repay allocation holders for temporary transfer.

(3) Includes 2,350ML temporarily transferred to allocation water.

(4) Includes 480ML temporarily transferred from allocation water to compensation storage.

**Table 15 - Guidelines for physical and chemical stressors - ANZECC (2000)**

Water quality indicator		Default trigger value <sup>(1)</sup>	Notes
Salinity ( $\mu\text{Scm}^{-1}$ )	Upland rivers <sup>(2)</sup>	350	Conductivity may be higher during low flow periods.
	Lowland rivers	300	
	Lakes and reservoirs	20 - 30	Conductivity in lakes and reservoirs is generally low but will vary depending on catchment geology.
Turbidity (NTU)	Upland rivers <sup>(2)</sup>	25	High turbidities may be observed during high flow events.
	Lowland rivers	50	
	Lakes and reservoirs	1 - 20	Deep reservoirs will generally have a lower turbidity than shallow reservoirs.
Total Nitrogen ( $\text{mgL}^{-1}$ )	Upland rivers <sup>(2)</sup>	0.20	
	Lowland rivers	0.60	
	Lakes and reservoirs	0.35	
Total Phosphorus ( $\text{mgL}^{-1}$ )	Upland rivers <sup>(2)</sup>	0.02	Above these levels excessive algal growth may occur.
	Lowland rivers	0.05	
	Lakes and reservoirs	0.01	

(1) The default trigger values provide a guide to the value or range of values of the specific water quality indicator, which, if exceeded, may indicate conditions detrimental to the health of the ecosystem which may require management action.

(2) Upland rivers are those above 150m altitude.

**Table 16 - Summary of water quality 2005-06**

Basin	Site no	Location	Electrical Conductivity $\mu\text{S/cm}$				Total Phosphorus (mg/L)				Total Nitrogen (mg/L)				Turbidity (NTU)			
			N	10th %ile	Med	90th %ile	N	10th %ile	Med	90th %ile	N	10th %ile	Med	90th %ile	N	10th %ile	Med	90th %ile
Dumaresq Tributaries	416003	Tenterfield Creek, Clifton	9	175	325	496	9	0.027	0.066	0.136	8	0.387	0.585	0.880	9	1.3	2.2	9.1
	416310	Severn River at Fambro	8	163	194	227	8	0.018	0.033	0.057	8	0.516	0.695	1.105	8	3.0	5.1	12
	416303	Pike Creek U/S Glenlyon Dam	8	177	216	385	8	0.021	0.034	0.048	7	0.191	0.530	0.668	7	1.7	6.8	23
	416309	Pike Creek at Glenlyon Dam Tailwater	10	215	299	470	10	0.034	0.045	0.066	10	0.441	0.54	0.733	10	2.2	4.0	9.0
	416032	Mole River, Donaldson	9	106	177	210	9	0.028	0.036	0.058	8	0.198	0.35	0.565	9	7.8	15	24.8
	416008	Beardy River, Haystack No. 4	9	87	127	194	9	0.017	0.043	0.073	8	0.205	0.455	0.816	9	7.5	25	42
	416312	Oaky Creek at Texas	3	364	368	470	3	0.054	0.055	0.106	2	0.368	0.440	0.512	3	8.6	21	56.2
	416415	Macintyre Brook, Booba Sands	9	180	288	410	9	0.031	0.039	0.117	8	0.432	0.605	1.23	9	10	17	180
Dumaresq	416007	Bonshaw Weir	9	109	187	238	9	0.029	0.038	0.067	8	0.333	0.560	0.703	9	5.6	8	43
	416049	Mauro	9	125	193	270	9	0.020	0.049	0.087	8	0.287	0.500	0.786	9	3.1	11	76
Macintyre	416012	Holdfast	9	193	308	414	9	0.043	0.058	0.122	8	0.297	0.465	0.822	9	10.8	16	184
	41610044	Salisbury Bridge (Boggabilla)	7	151	284	345	7	0.037	0.042	0.143	7	0.318	0.740	0.870	7	7.0	24	138
Barwon	416048	Kanowna	9	174	202	347	9	0.052	0.102	0.133	9	0.362	0.590	0.804	9	39.4	102	305
	416001	Mungindi	10	164	216	311	10	0.038	0.099	0.156	10	0.348	0.660	1.110	10	41.6	195	398
Weir	416202	Talwood	6	92	99	114	6	0.125	0.197	0.267	6	0.770	1.050	1.350	6	305	680	1495
Intersecting Streams	424002	Willara Crossing on Paroo																
	423002	Fords Bridge Bywash on Warrego																
	422015	Culgoa River at Brenda																
	422014	Bokhara River at Goodooga																
	422013	Birrie River near Goodooga																
	422012	Narran River at New Angledool																
Storages	416315	Glenlyon 1: Top	10	200	212	217	10	0.018	0.026	0.033	10	0.370	0.690	0.843	10	2.0	2.3	3.9
		Glenlyon 1: Middle	10	208	217	222	10	0.012	0.026	0.034	10	0.570	0.650	0.783	10	2	3.3	4.9
		Glenlyon 1: Bottom	10	209	218	229	10	0.014	0.043	0.0137	10	0.660	0.770	1.200	10	1.9	205	4.1

(1) The table provides information on the median value (middle value), the 10 th percentile (10% of the samples are below this value) and the 90 th percentile (90% of the samples are below this value; v.v. 10% of the samples are greater than this value).

(2) Insufficient samples were taken from the Intersecting Streams during the year to enable the data obtained to be statistically analysed.

**Table 17 - Summary of water quality 2006-07**

Basin	Site no	Location	Electrical Conductivity $\mu\text{S/cm}$				Total Phosphorus (mg/L)				Total Nitrogen (mg/L)				Turbidity (NTU)			
			N	10th %ile	Med	90th %ile	N	10th %ile	Med	90th %ile	N	10th %ile	Med	90th %ile	N	10th %ile	Med	90th %ile
Dumaresq Tributaries	416003	Tenterfield Creek, Clifton	12	170	251	489	10	0.021	0.193	0.314	10	0.410	0.820	1.100	12	1.7	4.5	16
	416310	Severn River at Farnbro	0				0				0				0			
	416303	Pike Creek U/S Glenlyon Dam	3	183	208	253	3	0.021	0.031	0.034	3	0.230	0.43	0.540	3	1.0	9.0	9.1
	416309	Pike Creek at Glenlyon Dam Tailwater	12	219	255	318	10	0.018	0.045	0.120	10	0.500	0.675	0.995	12	2.2	4.6	11.0
	416032	Mole River, Donaldson	12	140	169	218	10	0.021	0.043	0.065	10	0.275	0.490	0.730	12	4.7	9.6	24.0
	416008	Beardy River, Haystack No. 4	12	153	206	221	10	0.018	0.039	0.054	10	0.255	0.380	0.545	12	5.2	7.2	24.0
	416312	Oaky Creek at Texas	2	370	433	495	2	0.070	0.126	0.182	2	0.500	0.850	1.200	2	12.0	15.0	18.0
	416415	Macintyre Brook, Booba Sands	12	290	354	376	10	0.027	0.036	0.046	10	0.600	0.670	0.720	12	5.4	12.0	15.0
Dumaresq	416007	Bonshaw Weir	12	207	221	236	10	0.019	0.028	0.051	10	0.405	0.550	0.665	12	2.6	6.3	20.0
	416049	Mauro	12	201	229	238	10	0.022	0.027	0.072	10	0.395	0.520	0.930	12	3.4	5.5	10.0
Macintyre	416012	Holdfast	12	197	228	339	10	0.025	0.056	0.123	10	0.360	0.520	0.910	12	10.0	14.5	23.0
	41610044	Salisbury Bridge (Bogabilla)	7	204	260	340	7	0.025	0.050	0.077	7	0.410	0.520	0.590	7	7.3	13.0	32.0
	416048	Kanowna	7	182	256	354	6	0.027	0.045	0.094	6	0.370	0.470	0.650	7	18.0	40.0	95.0
	416001	Mungindi	7	219	233	326	7	0.022	0.035	0.082	7	0.430	0.470	0.670	7	16.0	37.0	85.0
Weir	416202	Talwood	0				0				0				0			
Intersecting Streams	424002	Willara Crossing on Paroo	8	38	70	111	7	0.1	0.1	0.2	7	0.4	0.5	0.8	8	500	700	1000
	423002	Fords Bridge Bywash on Warrego	5	72	99	239	5	0.2	0.2	0.3	5	0.4	0.6	1.8	5	550	600	5500
	422015	Culgoa River at Brenda	8	168	219	496	7	0.1	0.2	0.2	7	0.5	0.9	1.5	8	390	625	700
	422014	Bokhara River at Goodooga	8	203	306	672	7	0.2	0.2	0.4	7	0.8	1.1	1.9	8	370	800	800
	422013	Birrie River near Goodooga	0				0				0				0			
	422012	Narran River at New Angledool	8	195	374	1960	7	0.1	0.2	0.5	7	0.7	0.9	1.9	8	140	335	1100
Storages	416315	Glenlyon 1: Top	12	212	220	233	10	0.023	0.039	0.045	10	0.715	0.900	1.200	12	2.3	4.1	5.6
		Glenlyon 1: Middle	12	214	224	236	10	0.015	0.029	0.043	10	0.575	0.740	1.250	12	2.1	4.6	7.2
		Glenlyon 1: Bottom	12	213	224	242	10	0.020	0.034	0.188	10	0.640	0.755	2.100	12	2.9	3.6	11.0

(1) The table provides information on the median value (middle value), the 10<sup>th</sup> percentile (10% of the samples are below this value) and the 90<sup>th</sup> percentile (90% of the samples are below this value; v.v. 10% of the samples are greater than this value). N=No. of samples collected and analysed.

**Table 18 - Stream gauging stations (Border Rivers)**

AWRC No	Stream	Station	Equipment (see note)	Telemetry	Established Date	Maintained By	2005-06 Total Flow (MLx10 <sup>3</sup> )	2006-07 Total Flow (MLx10 <sup>3</sup> )	Historical Annual Totals & (Year) (MLx10 <sup>3</sup> )		
									Min	Max	Median
416001	Barwon River	Mungindi	AR	Yes	1889	DWE	107	28	21 (1994-95)	3,131 (1950-51)	437
416002	Macintyre River	Boggabilla	AR	Yes	1895	DWE	288	182	29 (1919-20)	5,228 (1989-90)	628
416003	Tenterfield Creek	Clifton	AR	Yes	1921	DWE	7	6	1 (2002-03)	235 (1949-50)	38
416006	Severn River	Ashford	AR	Yes	1970	DWE	101	180	17 (1941-42)	1,389 (1950-51)	206
416007	Dumaresq River	Bonshaw Weir	AR	Yes	1934	DWE	117	94	54 (1993-94)	1,327 (1975-76)	285
416008	Beardy River	Haystack	AR	Yes	1970	DWE	55	16	5 (1941-42)	149 (1974-75)	31
416010	Macintyre River	Wallangra	AR	Yes	1973	DWE	55	18	6 (1941-42)	667 (1970-71)	80
416011	Dumaresq River	Roseneath	AR	Yes	1972	DWE	54	91	36 (1993-94)	1,603 (1955-56)	313
416012	Macintyre River	Holdfast	AR	Yes	1951	DWE	164	172	49 (1957-58)	1,682 (1955-56)	299
416020	Ottdleys Creek	Coolatai	AR	Yes	1967	DWE	4	1	1 (2006-07)	65 (2000-01)	10
416032	Mole River	Donaldson	AR	Yes	1969	DWE	26	27	13 (1993-94)	465 (1975-76)	72
416037	Boomi River	Offtake	AR	Yes	1973	DWE	11	9	3 (1994-95)	143 (1983-84)	46
416040	Dumaresq River	Glenarbon Weir	AR	Yes	1996	DWE	116	74	74 (2006-07)	871 (1998-99)	151
416043	Macintyre River	Boomi Weir	AR	Yes	1976	DWE	151	91	21 (1994-95)	460 (1998-99)	160
416047	Macintyre River	Terrewah	AR	Yes	1985	DWE	211	118	31 (1994-95)	1,144 (1998-99)	267
416048	Macintyre River	Kanowna	AR	Yes	1988	DWE	133	52	25 (1994-95)	727 (1998-99)	146
416201A	Macintyre River	Goondiwindi	AR	Yes	1950	NRW	237	168	61 (1994-95)	4,488 (1955-56)	791
416201B	Macintyre River	Goondiwindi Weir	AR	Yes	1997	NRW	267	158	166 (2004-05)	1,885 (1998-99)	368
416202A	Weir River	Talwood	AR	Yes	1949	NRW	60	0	0 (2006-07)	688 (1995-96)	60
416305B	Brush Creek	Beebo	AR	Yes	1950	NRW	4	0	0 (Several)	55 (1995-96)	3
416309B	Pike Creek	Glenlyon Dam Tailwater	AR	Yes	1973	NRW	9	48	4 (1976-77)	180 (1989-90)	63
416310A	Dumaresq River	Farnbro	AR	Yes	1962	NRW	17	2.3	0.8 (2002-03)	375 (1975-76)	53
416312A	Oakey Creek	Texas	AR	Yes	1969	NRW	8	2.3	0.01 (1973-74)	99 (1995-96)	6
416315A	Pike Creek	Glenlyon Dam Headwater	AR	Yes	1977	NRW	0	0	0 (Several)	100 (1984-85)	0
416402C	Macintyre Brook	Inglewood	AR	Yes	1953	NRW	56	28	6 (1994-95)	546 (1995-96)	43
416415A	Macintyre Brook	Booba Sands	AR	Yes	1987	NRW	56	14	4 (1994-95)	630 (1995-96)	45

(1) AR = automatic recorder; SG = staff gauge, Established date = HYDSYS period of record (from which all long term calculations are made).  
DWE = NSW Department of Water and Energy, NRW = Qld Department of Natural Resources and Water

**Table 19 - Stream gauging stations (Intersecting Streams)**

AWRC No	Stream	Station	Equipment (see note)	Telemetry	Established Date	Maintained By	2005-06 Total Flow (MLx10 <sup>3</sup> )	2006-07 Total Flow (MLx10 <sup>3</sup> )	Historical Annual Totals & (Year) (MLx10 <sup>3</sup> )		
									Min.	Max.	Median
417001	Moonie River	Gundablouie	AR	Yes	1945	DWE	28	7	0 (1951-52)	596 (1975-76)	51
417204A	Moonie River	Fenton	AR	Yes	1971	NRW	33	10	0 (Several)	670 (1955-56)	69
422005	Bokhara River	Goodwin's	AR	Yes	1944	DWE	1	3	0 (Several)	652 (1955-56)	26
422006	Culgoa River	Downstream Collerina (Kenebree)	SG	No	1944	DWE	14	18	7 (2001-02)	2,341 (1989-90)	300
422010	Birrie River	Talawanta	SG	No	1964	DWE	1	5	0 (Several)	379 (1975-76)	26
422011	Culgoa River	Upstream Collerina (Mundiwa)	AR	Yes	1964	DWE	15	11	6 (2001-02)	1,002 (1970-71)	169
422012	Narran River	Angledool	SG	No	1959	DWE	4	1	0 (1992-93)	574 (1970-71)	110
422013	Birrie River	Near Goodooga	SG	No	1964	DWE	3	1	0 (1992-93)	441 (1982-83)	32
422014	Bokhara River	Goodooga	SG	No	1915	DWE	6	1	0 (Several)	306 (1982-83)	15
422015	Culgoa River	Brenda	AR	Yes	1960	DWE	21	2	0 (1992-93)	1,619 (1970-71)	278
422016	Narran River	Wilby Wilby	SG	No	1964	DWE	1	1	1 (Several)	519 (1983-84)	105
422017	Culgoa River	Weilmoringle	SG	No	1964	DWE	21	14	0 (1992-93)	999 (1983-84)	236
422204A	Culgoa River	Whyenbah	AR	Yes	1965	NRW	64	9	2.7 (1992-93)	1,614 (1970-71)	329
422206A	Narran River	Dirranbandi-Hebel Road	AR	Yes	1965	NRW	14	0.8	0.2 (1992-93)	826 (1982-83)	112
422207A	Ballandool River	Hebel-Bollon Road	AR	Yes	1965	NRW	3	0	0 (1992-93)	378 (1982-83)	16
422209A	Bokhara River	Hebel	AR	Yes	1967	NRW	10	1	0.5 (1992-93)	288 (1982-83)	25
422211A	Briarie Creek	Woolerbilla-Hebel Road	AR	Yes	1992	NRW	0	0.02	0 (several)	489 (1982-83)	8
423001	Warrego River	Fords Bridge	AR	Yes	1921	DWE	2	1	1 (Several)	344 (1989-90)	6
423002	Warrego River	Fords Bridge (Bywash)	AR	Yes	1921	DWE	15	28	0 (1957-58)	249 (1955-56)	36
423202C	Warrego River	Cunnamulla Weir	AR	Yes	1992	NRW	60	87	34 (1999-00)	1,589 (1996-97)	219
424002	Paroo River	Willara Crossing	AR	Yes	1975	DWE	28	185	26 (1979-80)	2,072 (1975-76)	177
424201A	Paroo River	Caiwarro	AR	Yes	1967	NRW	35	252	36 (1977-78)	2,028 (1989-90)	323
011202	Bulloo River	Autumnvale	AR	Yes	1967	NRW	117	772	19 (1976-77)	3,215 (1973-74)	397

(1) AR = automatic recorder; SG = staff gauge, Established date = HYDSYS period of record (from which all long term calculations are made).  
DWE = NSW Department of Water and Energy, NRW = Qld Department of Natural Resources and Water

**Table 20 - Groundwater monitoring network**

Bore number	Location	State	Piezometer	Depth (m)	Automatic WL Recorder (Yes/No)	Year Installed	Depth to WL 2005-06		Depth to WL 2006-07	
							Max (m)	Min (m)	Max (m)	Min (m)
41640001	Keelah Crossing	Q	A	87.3	No	1985	-4.30	-4.25	-4.66	-4.26
41640001	Keelah Crossing	Q	B	46.8	No	1985	-5.96	-5.85	-6.24	-5.95
41640002	Keelah Crossing	Q	A	17.8	No	1985	-8.81	-8.75	-8.81	-8.80
41640003	Yelarbon Desert	Q	A	92.4	No	1985	-3.74	-3.63	-4.05	-3.60
41640003	Yelarbon Desert	Q	B	47.9	No	1985	-5.29	-5.26	-5.54	-5.26
41630009	Glenarbon	Q	A	93	No	1996	-13.03	-11.70	Note (1)	Note (1)
41630042	David Muggleton	Q	A	13.3	No	1959	-7.60	-7.46	-7.72	-7.46
41630039	'Eldorado'	Q	A	16.7	No	1959	-6.40	-6.40	Note (1)	Note (1)
41630072	Cunningham Weir	Q	A	90.4	Yes	1985	-47.58	-42.03	-45.50	-37.00
41630072	Cunningham Weir	Q	B	41.4	Yes	1985	-37.54	-34.64	-35.25	-32.80
41630072	Cunningham Weir	Q	C	10.4	Yes	1985	-6.24	-5.97	-6.18	-6.07
41630064	Texas	Q	A	52.5	No	1985	-20.16	-16.95	-23.88	-18.21
41630064	Texas	Q	B	28.5	No	1985	-17.09	-14.14	-17.95	-14.40
41630066	Bill & Tater	Q	A	90.4	Yes	1985	-29.78	-21.49	-37.77	-23.85
41630066	Bill & Tater	Q	B	45.9	Yes	1985	-28.30	-19.64	-35.13	-22.24
41630067	Bill & Tater	Q	A	12.2	Yes	1985	-5.58	-5.42	-5.85	-5.14
41630063	Finlay's	Q	A	100.6	No	1983	-23.84	-11.98	-30.21	-10.23
41630063	Finlay's	Q	B	64.6	No	1983	-27.36	-14.81	-30.12	-10.06
41630062	Finlay's	Q	A	17.4	No	1985	-7.44	-6.59	-7.91	-6.59
41630071	Finlay's	Q	A	48.2	No	1985	-12.17	-8.75	-15.59	-7.66
41630071	Finlay's	Q	B	41.2	No	1985	-13.14	-8.56	-14.73	-7.55
41630059	John Moore	Q	A	101.7	No	1985	-7.98	-7.09	-7.67	-7.13
41630069	John Moore	Q	A	92	No	1985	-15.80	-10.83	-24.52	-9.66
41630069	John Moore	Q	B	35.9	No	1985	-12.93	-9.36	-21.26	-8.51
41630069	John Moore	Q	C	15.4	No	1985	-7.24	-6.84	-8.76	-6.80
41630060	John Moore	Q	A	12.1	No	1985	-8.81	-8.48	-8.97	-7.69
41630058	John Moore	Q	A	10.6	No	1985	-7.71	-7.46	-8.92	-7.62
41630070	Phillip Harpham	Q	A	9.2	No	1985	-5.36	-5.02	-5.00	-4.77
41630004	V and E Sattolo	Q	A	11.8	No	1960	-11.75	-11.20	-11.82	-10.81
41630003	V and E Sattolo	Q	A	27.1	No	1961	-12.68	-10.92	-18.26	-10.92
41630002	V and E Sattolo	Q	A	29.9	No	1961	-11.02	-10.60	-15.17	-9.93
GW036697	Keelah Bridge	NSW	1	20	Yes	1987	-8.78	-8.52	-8.78	-8.72
GW036697	Keelah Bridge	NSW	2	64	Yes	1987	-6.52	-6.17	-6.51	-4.71
GW036697	Keelah Bridge	NSW	3	83.5	Yes	1987	-4.61	-4.48	-6.50	-4.40
GW040635	Smithfield Section	NSW	1	15.9	No	1960	-8.91	-8.02	-8.76	-8.37
GW040636	Smithfield Section	NSW	1	11.3	No	1960	-8.37	-8.08	-8.36	-8.21
GW040637	Smithfield Section	NSW	1	7.9	No	1960	-7.50	-7.21	-7.80	-7.65
GW040638	Smithfield Section	NSW	1	11.9	No	1960	Dry	Dry	Dry	Dry
GW40771	Smithfield Section	NSW	1	30	Yes	1994	-25.82	-24.38	-27.10	-25.77
GW40771	Smithfield Section	NSW	2	37	Yes	1994	-28.23	-27.24	-30.07	-28.58
GW40771	Smithfield Section	NSW	3	50	Yes	1994	-31.93	-29.41	-34.03	-31.91
GW040641	Riverstone Section	NSW	1	35	No	1960	-9.25	-8.81	-23.96	-13.40
GW040644	Riverstone Section	NSW	1	9.5	No	1960	-8.65	-8.05	-8.47	-8.34
GW040646	Riverstone Section	NSW	1	7.7	No	1960	-6.88	-6.13	-7.31	-6.94
GW040647	Hopwood Section	NSW	1	12.8	No	1959	-9.79	-8.72	-10.64	-9.36
GW040649	Hopwood Section	NSW	1	28.9	No	1959	-9.26	-8.01	-8.45	-8.26
GW040652	Hopwood Section	NSW	1	12.2	No	1959	-8.88	-8.60	-8.99	-8.88
GW40829	Lochiel Section	NSW	1	12	No	1996	-9.95	-9.76	-10.75	-9.82
GW40829	Lochiel Section	NSW	2	42	No	1996	-9.98	-9.56	-10.21	-10.05
GW40830	Lochiel Section	NSW	1	27	No	1996	-10.29	-9.73	-10.56	-10.23
GW40831	Lochiel Section	NSW	1	44	Yes	1996	-37.06	-32.43	-40.41	-36.89
GW40831	Lochiel Section	NSW	2	96	Yes	1996	-39.27	-33.33	-42.81	-38.38

(1) Monitoring bores have been abandoned.

# Appendix - Previous resource assessment summaries

**Table 21 – Summary of resource assessments (Border Rivers) 1 Oct 01 – 30 Sep 02 (gigalitres)**

Bulk Accounts	Queensland				New South Wales			
	Account balance 1/10/01	Total use/loss for year	Total distribution for year	Account balance 1/10/02	Account balance 1/10/01	Total use/loss for year	Total distribution for year	Account balance 1/10/02
	(a)	(b)	(c)	(a)-(b)+(c)	(a)	(b)	(c)	(a)-(b)+(c)
Storage Loss (Glenlyon Dam)	6.42	10.28	8.96	5.10	5.00	9.29	9.31	5.02
Storage Loss (Pindari Dam)	-	-	-	-	17.28	13.27	7.54	11.55
Essential Supplies	10.96	2.01	2.01	10.96	62.20	8.21	4.56	58.55
General Use	44.85	34.91	21.43	31.37	201.97	138.58	53.99	117.38
General Use Delivery Loss	13.46	10.47	6.42	9.41	60.60	41.59	14.84	33.85

NOTE: Continuous accounting commenced in the Border Rivers on 1 October 2001.

**Table 22 – Summary of resource assessments (Border Rivers) 1 Oct 02 – 30 Jun 03 (gigalitres)**

Bulk Accounts	Queensland				New South Wales			
	Account balance 1/10/02	Total use/loss for year	Total distribution for year	Account balance 1/7/03	Account balance 1/10/02	Total use/loss for year	Total distribution for year	Account balance 1/7/03
	(a)	(b)	(c)	(a)-(b)+(c)	(a)	(b)	(c)	(a)-(b)+(c)
Storage Loss (Glenlyon Dam)	5.10	4.71	2.05	2.44	5.02	4.59	0.74	1.17
Storage Loss (Pindari Dam)	-	-	-	-	11.55	6.60	3.56	8.51
Essential Supplies	10.96	1.85	1.73	10.84	58.55	5.95	9.60	62.20
General Use	31.37	28.76	0.76	3.37	117.38	118.96	19.89	18.31
General Use Delivery Loss	9.41	8.60	0.22	1.03	33.87	35.69	7.33	5.51

NOTE: The Commission's reporting period for statistics was changed from 1 October to 30 September to 1 July to 30 June after the 2002-03 water year. Consequently the 2002-03 statistics are for a 9 month period only.



**Table 23 – Summary of resource assessments (Border Rivers) 1 July 03 – 30 Jun 04 (gigalitres)**

Bulk Accounts	Queensland				New South Wales			
	Account balance 1/7/03	Total use/loss for year	Total distribution for year	Account balance 1/7/04	Account balance 1/7/03	Total use/loss for year	Total distribution for year	Account balance 1/7/04
	(a)	(b)	(c)	(a)-(b)+(c)	(a)	(b)	(c)	(a)-(b)+(c)
Storage Loss (Glenlyon Dam)	2.44	6.22	7.10	3.32	1.17	2.54	3.24	1.87
Storage Loss (Pindari Dam)	-	-	-	-	8.51	9.91	15.15	13.75
Essential Supplies	8.08	2.12	1.52	7.48	46.60	5.70	-14.36	26.54
Essential Supplies Delivery Loss	2.72	0.61	0.46	2.57	15.60	1.16	-4.17	10.27
General Use	3.41	2.70	19.24	19.95	18.31	45.42	158.48	131.37
General Use Delivery Loss	1.03	0.81	5.77	5.99	5.51	13.63	47.54	39.42

NOTE: The negative distribution to the NSW Essential Supplies accounts are due to the reduction in the total limit of those accounts made during the year from 62.20GL to 41.10GL.

**Table 24 – Summary of resource assessments (Border Rivers) 1 July 04 – 30 Jun 05 (gigalitres)**

Bulk Accounts	Queensland				New South Wales			
	Account balance 1/7/04	Total use/loss for year	Total distribution for year	Account balance 1/7/05	Account balance 1/7/04	Total use/loss for year	Total distribution for year	Account balance 1/7/05
	(a)	(b)	(c)	(a)-(b)+(c)	(a)	(b)	(c)	(a)-(b)+(c)
Storage Loss (Glenlyon Dam)	3.32	8.41	8.78	3.69	1.87	3.63	3.57	1.81
Storage Loss (Pindari Dam)	-	-	-	-	13.75	12.36	12.40	13.79
Essential Supplies (minimum release)	0.84	0.28	0.44	1.00	3.76	10.95	11.02	3.83
Essential Supplies (other)	6.64	2.22	2.01	6.43	22.78	3.17	3.19	22.80
Essential Supplies Delivery Loss	2.57	0.78	0.62	2.41	10.27	1.49	0.41	9.19
General Use	19.95	10.23	14.03	23.75	131.37	45.3	43.77	129.82
General Use Delivery Loss	5.99	3.08	3.54	6.45	39.52	13.61	11.22	37.03