Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	2
Output:	3.1		
Division/Agency:	Water Governance Division		
Topic:	Wimmera pipeline - funding		
Hansard Page ECITA:	11 (21 Oct)		

#### **Senator Siewert asked:**

How much money was allocated to the Wimmera pipeline?

#### **Answer:**

As indicated at the hearing up to \$124 million in further funding is available for the Wimmera Mallee Pipeline project. \$99 million has been allocated and a further \$25 million will be provided on a matching funding basis if required.

This funding is additional to the original Commonwealth Water Smart Australia funding of \$167 million provided to the project over the 2005-06 to 2007-08 financial years.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	3
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Murray-Darling Basin Infrastructure funding		
Hansard Page ECITA:	14 (21 Oct)		

## **Senator Birmingham asked:**

- (a) That is \$172.9 million on infrastructure this financial year. Will that be spent on projects in the basin or outside the basin?
- (b) How much of that is being spent within the basin?
- (c) What water savings is the \$172.9 million expected to generate?

#### **Answers:**

- (a) The \$172.9 million of infrastructure funding this financial year will be spent on projects both in and outside of the basin.
- (b) There is currently \$145.2 million allocated to projects within the basin.
- (c) The water savings from these projects won't be known until all due diligence checks are completed and the contracts have been signed. Therefore it is not possible at this stage to provide an estimate of expected water savings. Even then these projects will continue over several financial years and any projected water savings will be for the life of the project and not be specifically for the \$172.9 million spent in 2008-09.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	4
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Menindee lakes – history of works		
Hansard Page ECITA:	17 (21 Oct)		

#### **Senator Xenophon asked:**

- (a) In relation to Menindee Lakes, when I met the Darling River Action Group a number of months ago they said that they have been agitating state and federal governments for the last 10 years in relation to these projects. Can you take on notice providing some history in relation to that in terms of the works?
- (b) Also, is there any way to fast track those water savings?

#### **Answers:**

- (a) The Menindee Lakes have been the subject of a number of studies in the years prior to the current government taking office in November 2007. These studies considered only limited structural changes and management arrangements and, as a result, did not identify significant water savings or result in infrastructure works. Previous studies include:
  - the Menindee Lakes Ecological Sustainable Development Project completed in 2002:
  - the Menindee Lakes Structural Works Project, which was not implemented following the completion in 2005 of the Environment Impact Statement for Structural Works at Lakes Menindee and Cawndilla; and
  - the Darling River Water Savings Project (DWRSP) Part A feasibility study completed in April 2007.
- (b) The Rudd Government made an election commitment to invest up to \$400 million to reduce evaporation and improve water efficiency at Menindee Lakes, secure Broken Hill's water supply, protect the local environment and return up to 200 GL to the environment. In addition, on 14 August 2008, the Prime Minister announced new initiatives to help deal with the critical situation in the Murray-Darling Basin, including the acceleration of the Menindee Lakes project.

There are two key approaches the Australian Government is taking to accelerate the Menindee Lakes Project. Firstly, the Australian Government has provided 50% of the funding to work closely with the NSW Government on progressing the Part B stage of the Darling River Water Savings Project. This project will build on the options that were identified in Part A, recommend a preferred water savings scheme to reduce evaporation at Menindee Lakes and recommend options to secure Broken Hill's water

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

supply. The project is expected to be completed by September 2009. The Darling River Water Savings Project is an important element of 'Water for the Future' – the Rudd Government's long-term water plan which prioritises using water wisely, securing our water supplies, supporting healthy rivers and tackling climate change.

Complementing the Part B study, and as an initial step towards accelerating efforts to identify options for securing Broken Hill's water supply, the Australian Government also commissioned Geoscience Australia to undertake a study of known groundwater resources and aquifer storage options within 150km of Broken Hill (the 'Broken Hill Groundwater Resource Assessment'). This study has recently been completed, and indicates good potential for a combination of groundwater extraction and a managed aquifer recharge system in the vicinity of existing water infrastructure at Menindee Lakes.

The use of aquifers could, potentially, significantly reduce the evaporative losses created by having to store the bulk of Broken Hill's water supply in the Menindee Lakes. Any water saved could be returned to the lower Darling and the Murray rivers to help maintain the health of the Basin's rivers and wetlands.

To further prove up the aquifer storage option, on-ground investigations and preparations for an airborne electro-magnetics study of the region's groundwater and aquifer systems have been commissioned from Geoscience Australia. This work is expected to be completed by February 2009. If this next phase determines the use of sustainable groundwater resources and an aquifer storage system is practicable, a more detailed geological and engineering assessment will be undertaken to fully test this new approach. This will be closely linked to the Part B study of the Menindee Lakes.

Commencement of infrastructure work that would result in achieving water savings is not likely to occur in the short-term. Comprehensive groundwater/aquifer investigations and the Part B study will need to be completed to identify the preferred options for major infrastructure investment. Prior to the infrastructure works commencing, the Australian Government will need to comply with NSW laws for completion of an Environmental Impact Statement, achievement of planning approvals, community consultation and the development of detailed construction plans via a tender process. Discussions have already commenced with NSW officials on streamlining the approvals process and minimising the construction period once a final preferred option is chosen.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	5
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Water purchases – Hyder Report		
Hansard Page ECITA:	21 (21 Oct)		

#### **Senator Heffernan asked:**

1. Can you give us the details of the applicants and why you chose them?

#### **Senator Nash asked:**

- 2. How many other proponents were potentially being considered to do this?
- 3. When you provide that information on notice, can you also provide the criteria which led to the decision to appoint Hyder Consulting to do this?

#### **Answers:**

- 1. Hyder Consulting Pty Ltd were selected from the Irrigation Management Services (Financial, Legal and Due Diligence) Panel (0708-0020). They were selected on the basis of having the required resources, expertise and experience to independently review the 2007-08 Water Entitlement Purchase Program.
- 2. Four other consultants on the Irrigation Management Services (Financial, Legal and Due Diligence) Panel were considered for this consultancy.
- 3. Hyder Consulting's proposal to undertake the review of the 2007-08 Water Entitlement Purchase Program was assessed by a DEWHA evaluation panel according to: their technical capacity to complete the review, the assessed risk of them not being able to complete the review, value for money and the review being completed in an acceptable time.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	6
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	ABARE Report – Time Frame		
Hansard Page ECITA:	24 (21 Oct)		

#### **Senator Nash asked:**

Just on that specifically, how long did they take to compile the report and over what period did they look at the impact?

#### **Answer:**

The Hyder Report was completed between 12 June and 24 September 2008. The report looked at the immediate and longer term impact of the 2007-08 water entitlement purchases, in terms of how crop production would be affected by the volumes of water that are recovered under the water entitlement purchase program.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	7
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	ABARE Report – Time Frame		
Hansard Page ECITA:	27 (21 Oct)		

#### **Senator Siewert asked:**

Could you take on notice to provide a brief explanation about which recommendations you took on board and which ones you did not and why?

#### **Answer:**

The Water Entitlement Purchase Program was developed on the basis of wide ranging analysis of the purchase options available. This included consideration of the analysis in the ABARE report (Purchasing Water in the Murray Darling Basin), the experiences of the MDBC Pilot Environmental Water Purchase program (part of The Living Murray initiative) and the NSW RiverBank water entitlement purchase program. While the ABARE report did not make recommendations, this report did identify that open market purchases are likely to be the most cost effective mechanism for purchasing water.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	8
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Water Purchases -Toorale		
Hansard Page ECITA:	31 (21 Oct)		

#### Senator Nash asked:

Give us the detailed chain of events (leading up to the purchase of Toorale).

#### **Answer:**

Toorale Station was formally advertised for sale by auction on 31 July 2008, with the auction scheduled six weeks later on 11 September 2008.

During early to mid August officials from the NSW Department of Environment and Climate Change (DECC) made contact on several occasions with officials from the Department of Environment, Water, Heritage and the Arts (DEWHA) regarding their (NSW) interest in acquiring the property and the possibility of a Commonwealth contribution to the purchase. These contacts were initially about the potential addition of the property to the National Reserve System, but the substantial water entitlements associated with the property was also raised.

The Prime Minister announced on 14 August 2008 "A large Commonwealth-State initiative to co-fund the purchase of properties holding large water entitlements, particularly in the northern Basin."

On 25 August DECC provided DEWHA with a confidential qualitative assessment of the benefits of purchasing Toorale, focussed on its land and heritage values as well as the volume of water entitlements and their potential benefits for environmental watering in the Darling River system. This was substantially based on the 2004 biodiversity assessment of the Toorale wildlife refuge by DECC and modelling of water diversions by the NSW Department of Water and Energy.

A number of discussions between DECC and DEWHA officials on the potential for acquisition of the property, for both its land and water values, were held between 13 August and 10 September 2008.

The Commonwealth Minister for the Environment, Heritage and the Arts approved up to \$3.5 million of National Reserve System funding towards the Toorale purchase by the NSW Government on 3 September 2008.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

In early September DECC obtained a valuation from the NSW Lands Department of the land and water at Toorale. An independent valuation report on the Toorale water entitlements was also provided to DEWHA by a certified practising valuer.

On 9 September 2008, the Commonwealth Minister for Climate Change and Water approved the conditions under which the Commonwealth might assist NSW with the purchase of Toorale from the 'Water for the Future' program.

NSW DECC negotiated the purchase of Toorale with Clyde Agriculture on 10 September consistent with the conditions above.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	9
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Water Purchases – Toorale – cost of land per acre		
Hansard Page ECITA:	32 (21 Oct)		

# **Senator Heffernan asked:**

Could you give us the valuation (price paid for the land per acre)?

#### **Answer:**

Based on the notional land value within a total purchase price of \$23.75 million, the total cost of land per acre is \$54.87.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	10
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Water Purchases – Valuations		
Hansard Page ECITA:	33 (21 Oct)		

# **Senator Heffernan asked:**

Could you provide the details of that on notice. How much did you pay for them to do this valuation?

#### **Answer:**

Arche Consulting was paid \$6,647.99 to value Toorale's water licences and this included the engagement of a certified practising valuer.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	11
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Murray Darling Basin – variability of the river		
Hansard Page ECITA:	34 (21 Oct)		

#### **Senator Heffernan asked:**

By the way, could you tell us the variability on the river (assumed to be the Darling) while you are doing this. What is the percentage variability on the river? I want to get an idea of this for the taxpayers

#### **Answer:**

According to the CSIRO Sustainable Yields Project for the Barwon-Darling region, the Darling River (between 1931 and 2007) flow varied at Bourke by a ratio of 395:1 (minimum of 68 GL and maximum of 26, 828 GL). The average flow is 3,166 GL/year.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	13
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Murray-Darling Basin – Licences		
Hansard Page ECITA:	39 (21 Oct)		

#### **Senator Heffernan asked:**

Can you give me the break-up between low- and high – security licences in the Murray-Darling Basin?

#### **Answer:**

According to the Report *Environmental Water Allocation R&D Program Australian Water Entitlements* by Webb, McKeown and Associates Pty Ltd , prepared for the Department of Environment, Water, Heritage and the Arts, the break-up of licences in the Murray-Darling Basin is as follows:

# QLD

MURRAY DARLING VALLEY Water Management Area	Water Entitlement Type	Total Nominal Volume of entitlements ((Megalitres)	Megalitres extracted per megalitre of "nominal volume" (see for a discussion of the derivation of these numbers)
CONDAMINE BALONNE			
	High	3,387	not obtained 1
Impor Condomina Water	Risk (Class A)	7,320	not obtained <sup>2</sup>
Upper Condamine Water Management Area	Medium Priority	22,328	$0.7^{3}$
Wianagement Area	Risk (Class B)	925	not obtained 4
	Unsupplemented	55,726	1.0
Condamine and Balonne Water	High Priority	1,165	not obtained 1
Management Area	Medium Priority	3,689	not obtained 5
Management Area	Unsupplemented	36,050	1.00
Lower Polonno Water Management	High Priority	3,000	1.00
Lower Balonne Water Management Area	Low Priority	81,575	0.92
Alca	Unsupplemented	287,317	1.00
Tributaries Water Management Area	Unsupplemented	63,585	1.00
QLD BORDER RIVERS			
Magintura Busak Watan Managamant	High Priority	478	0.98
Macintrye Brook Water Management Area	Medium Priority	24,519	0.64
Alta	Unsupplemented	402	1.00
Dumanaga Diwan Watan Managamant	High Priority	2,176	0.98
Dumaresq River Water Management Area	Medium Priority	82,490	0.25
Area	Unsupplemented	95,917	1.00

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

	3.5.01 - 5.1.1		0.00
Upper Weir River Water	Medium Priority	14,446	0.22
Management Area	Unsupplemented	37,548	1.00
Northern Weir Water Management			
Area	Unsupplemented	2,351	1.00
Callandoon Creek Water			1.00
Management Area	Unsupplemented	5,598	
Lower Weir River Water			1.00
Management Area	Unsupplemented	25,236	
Stanthope Water Management Area	Unsupplemented	6,794	1.00
MOONIE			
	Unsupplemented	28004	1.00
WARREGO			
Upper Warrego Water Management			
Area	Unsupplemented	6170	1.00
Lawar Warraga Water Managament	High Priority	0	
Lower Warrego Water Management Area	Medium Priority	2612	0.71
Alea	Unsupplemented	41933	1.00
PAROO	Unsupplemented	150	1.00
BULLOO	Unsupplemented	620	1.00
NEBINE	Unsupplemented	3139	1.00

#### Notes:

<sup>&</sup>lt;sup>1</sup> Could not be determined from available extraction data but should be high

<sup>&</sup>lt;sup>2</sup> Could not be determined from available extraction data, allocations dependent on flow events not dam levels

<sup>&</sup>lt;sup>3</sup> Estimate only, because available data does not separately identify medium priority extractions in Upper Condamine and Condamine and Balonne Water Management Areas

<sup>&</sup>lt;sup>4</sup> Could not be determined from available extraction data but would be much lower than medium priority as water is only allocated when medium priority allocations reach 100%.

<sup>5</sup> Could not be determined as data does not separately identify medium priority extractions in Upper Condamine and Condamine and Balonne Water Management Areas

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

# NSW

System	Access licence category	Number of shares	Average annual volume taken per share 7 (Megalitres)
Border Rivers	Domestic and stock	1,205	1
Regulated	Local water utility	620	1
Assessment based on water use with current levels of irrigation	Regulated river (high security)	1,233	1
development and full use of high priority allocations.	Regulated river (general security)  – A class)	21,000	0.40 1 & 2
	Regulated river (general security – B class)	244,000	0.40 1 & 2
	Supplementary water (A class)	9,450	0.71 1 & 3
	Supplementary water (B class)	109,800	0.71 1 & 3
Border Rivers –	Unregulated Access Licence	29,380	Not available <sup>4</sup>
Unregulated	Stock and Domestic Licence	547	Not available 4
Gwydir –	Domestic and stock	4,245	1
Regulated	Local water utility	3,836	1
Assessment based on water use with current	Regulated river (high security)	19,293	1
levels of irrigation development and full	Regulated river (general security)	509,500	0.36 5
use of high priority allocations.	Supplementary water	178,000	0.58 5
Gwydir –	Unregulated Access Licence	37,702	Not available 4
Unregulated	Stock and Domestic License	355	Not available 4
Upper Namoi	Domestic and stock	46	1
Assessment based on	Local water utility	150	1
water use with current levels of irrigation	Regulated river (high security)	80	1
development and full use of high priority	Regulated river (general security)	9,729	0.77 <sup>6</sup>
allocations.	Supplementary water	none	-
Lower Namoi	Domestic and stock	1,976	1
Assessment based on	Local water utility	2,271	1
water use with current levels of irrigation	Regulated river (high security)	3,418	1
development, full use of high priority	Regulated river (general security)	246,692	0.77 <sup>6 &amp; 2</sup>
allocations and allowance for growth in Tamworth usage.	Supplementary water	115,503	0.22 <sup>3</sup>
Peel Regulated	Domestic and stock	160	1
Assessment based on	Local water utility	16,400	1
water use with current levels of irrigation	Regulated river (high security)	350	1
development, full use of	Regulated river (general security)	31,053	0.18

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

System	Access licence category	Number of shares	Average annual volume taken per share 7 (Megalitres)
high priority allocations and allowance for growth in Tamworth usage.	Supplementary water	Not yet determined	-
Namoi –Peel	Unregulated Access Licence <sup>3</sup>	155,665	Not available 4
Unregulated	Stock and Domestic License	1053	Not available 4
Macquarie and	Domestic and stock	14,265	1
Cudgegong Regulated	Local water utility	22,681	1
Assessment based on	Regulated river (high security)	19,419	1
water use with current	Regulated river (general security)	632,428	0.421 & 2
levels of irrigation development and full use of high priority allocations	Supplementary water	50,000	0.64 <sup>3</sup>
Macquarie and	Unregulated Access Licence <sup>3</sup>	81,029	Not available 4
Cudgegong Unregulated	Stock and Domestic License	1,344	Not available <sup>4</sup>
Lachlan Regulated	Domestic and stock	13,100	1
Assessment based on water use with current	Local water utility	15,539	1
levels of irrigation	Regulated river (high security)	26,472	1
development and full use of high priority	Regulated river (conveyance)	17,911	1
allocations	Regulated river (general security)	592,847	0.42
	Supplementary water	none	-
Lachlan	Unregulated Access Licence	50,349	Not available 4
Unregulated	Stock and Domestic Licence	830	Not available 4
Murrumbidgee	Domestic and stock	35,572	1
Regulated <sup>7</sup>	Local water utility	23,403	1
Long-term cap equivalent - assumes	Regulated river (high security)	298,021	0.95
use of 'regulated flow' increases and	Regulated river (conveyance)	373,000	0.95
consequent elimination of supplementary water	Regulated river (general security)	2,043,432	0.63
of supplementary water allocations.	Supplementary water	220,000	0
Murrumbidgee	Unregulated Access Licence	85,986	Not available 4
Unregulated	Stock and Domestic Licence	1,173	Not available 4

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

System	Access licence category	Number of shares	Average annual volume taken per share 7 (Megalitres)
Murray Regulated	Domestic and stock	14,518	1
Long-term cap equivalent - assumes use of	Local water utility	33,336	1
'regulated flow' increases	Regulated river (high security)	198011	0.95
and consequent elimination of	Regulated river (conveyance)	330,000	0.95
supplementary water allocations.	Regulated river (general security)	1,670,508	0.8
	Supplementary water	250,000	0
Murray Unregulated	Unregulated Access Licence	51,383	Not available 4
	Stock and Domestic License	3,015	Not available 4
Lower Darling	Domestic and stock	601	1
Regulated	Local water utility	10,160	1
	Regulated river (high security)	7,999	0.95
	Regulated river (general security)	30,288	0.8
	Supplementary water	250,000	0.37
Lower Darling	Domestic and stock	601	1
Regulated	Local water utility	10,160	1
	Regulated river (high security)	7,999	0.95
	Regulated river (general security)	30,288	0.8
	Supplementary water	250,000	0.37

#### Notes:

<sup>&</sup>lt;sup>1</sup> Available data does not discriminate between A and B class extractions

<sup>&</sup>lt;sup>2</sup> If irrigation development increases, this figure may increase. Computer modelling would be needed to ascertain potential change.

<sup>&</sup>lt;sup>3</sup> If irrigation development increases this figure may decrease due to NSW rules relating to constraining extractions to within allowed longterm extraction limits by reducing supplementary access licence extractions. Computer modelling would be needed to ascertain potential

<sup>&</sup>lt;sup>4</sup> Extraction reliabilities for unregulated licences variable from stream to stream and dependent on location of extraction point.

<sup>&</sup>lt;sup>5</sup> Unlikely to be any significant change, even if further irrigation development increases as virtually all water available as regulated flow from Copeton Dam is already being used.

<sup>&</sup>lt;sup>6</sup> Available data does not discriminate between Upper Namoi and Lower Namoi systems. General security in upper Namoi would be more

reliable than in Lower Namoi.

<sup>7</sup> These figures were drawn from the Water Sharing Plan and might have changed due to entitlement conversions from General Security to High Security since the preparation of the Plan

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

**VIC**Both licence volumes, and long-term cap equivalent figures will be shortly subject to revision by the Victorian Department of Sustainability and Environment.

Valley	Water Entitlement Type	<b>Total shares</b> (Megalitres)	Long-term cap equivalent <sup>3</sup> (MI/MI of shares)
Murray	High Reliability Water Share The following Authorities hold shares for conveyance loss purposes Goulburn Murray Water 256,000 megalitres Southern Rural Water 12,000 megalitres First Mildura Irrigation Trust 12,000 megalitres	1,435,000	0.95
	Low Reliability Water Share Goulburn Murray Water hold 116,000 megalitres of shares for conveyance loss purpose	437,000	0.41
	VIC Flora and Fauna Exchange Entitlement	28,000	0.66
Kiewa	Take and use licences	14,475 <sup>2</sup>	Not available 1
	High Reliability Water Share  AGL Hydro Ltd and North East Water	1,150	0.95
Ovens	High Reliability Water Share	35,000	0.95
	Take and use licences <sup>2</sup>	20,500 <sup>2</sup>	-
Broken	High Reliability Water Share (Broken Ck)	66,200	0.95
	Take and use licences	5,667 <sup>2</sup>	Not available 1
Goulburn	High Reliability Water Share Authorities hold 449,000 megalitres of shares conveyance loss purposes	1,615,000	0.95
	Low Reliability Water Share Authorities hold 137,000 megalitres of shares volume for conveyance loss purposes	626,000	0.46
	Take and use licences	28,894 <sup>2</sup>	Not available 1
Campaspe	High Reliability Water Share Authorities hold 2,700 megalitres of this volume for conveyance loss purposes	37,118	0.95
	Low Reliability Water Share Authorities hold 1,400 megalitres of this volume for conveyance loss purposes	18,661	0.64
	Take and use licences	4,712 <sup>2</sup>	Not available 1
Loddon	High Reliability Water Share	23,300	0.95
	Low Reliability Water Share	8,100	0.49
	Loddon Environmental Reserve	2000	-
	Take and use licences	23,423 <sup>2</sup>	Not available <sup>1</sup>
Avoca	Take and use licences	3,612 <sup>2</sup>	Not available <sup>1</sup>

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Wimmera-Avon	High Reliability Water Share	Need to Obtain	
	Low Reliability Water Share	Need to Obtain	
	Take and use licences	2,486 <sup>2</sup>	Not available <sup>1</sup>
Mallee	Take and use licences	None	Not available <sup>1</sup>

#### Notes:

#### SA

Cap group	Water Allocation volume	Long-term cap equivalent 5
SA All Other Purposes	514,500	$0.89^{2}$
Metropolitan Water	130,000 1	12
Country Towns	50,000	12
Land Management Lower Murray Reclaimed Areas	103,500 <sup>3 &amp; 4</sup>	12

#### Notes:

 $<sup>^{</sup>I}\textit{Extraction reliabilities for unregulated licences variable from stream to stream and dependent on location of extraction point.}$ 

<sup>&</sup>lt;sup>2</sup> take and use licence volume taken from The State of Victoria Department of Environment and Sustainability (2007). State Water Report 2005/06.

<sup>&</sup>lt;sup>1</sup> Water allocation is 650,000 Megalitres over any 5 years, which averages out at 130,000 Megalitres per annum.

<sup>&</sup>lt;sup>2</sup> Cap volumes, and therefore Long-term Cap equivalents, may alter. The 2005/2006 Independent Audit Group report has recommended that a climate adjusted cap be used for Adelaide.

<sup>&</sup>lt;sup>3</sup> Significant volumes have been transferred.

<sup>&</sup>lt;sup>4</sup> Includes 22,200 Megalitres for environmental land management.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	14
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Murray Darling Basin - variability		
Hansard Page ECITA:	40 (21 Oct)		

#### **Senator Heffernan asked:**

The Murray has a variability of 300 per cent. Is that right?

#### **Answer:**

According to the CSIRO Sustainable Yields Project, River Murray flow at Wentworth under predevelopment conditions varied by a ratio of 11:1 (minimum of 4006 GL and maximum of 44401 GL). The average flow is 14,459 GL/year between 1895 and 2006.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	15
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Small Block irrigators exit grant package – funds allocated		
Hansard Page ECITA:	45 (21 Oct)		

# **Senator Fielding asked:**

Do you have the details of how they came up with the \$57 million?

#### **Answer:**

Funding of \$57 million was provided for the program based on previous experience of the industry take up of exit grant packages offered by the Australian Government. This estimate was derived from the number of eligible irrigators in the Southern Murray-Darling Basin based on the farm size criterion and expectations of the take up rate of the exit grant.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	16
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Murray Darling Basin – sleeper licences		
Hansard Page ECITA:	48 (21 Oct)		

## **Senator Xenophon asked:**

Can you provide information on notice about the number of sleeper licences that are in the system?

#### **Answer:**

Sleeper licences are not a separate category but are licences that have not yet been activated by using their water allocations. Information is not held by the department on the number of sleeper licences in the system and this would only be available from the individual water supply authorities. In addition as many irrigators have had zero water allocations over the past two irrigation seasons, it would be difficult to identify which licence holders are sleepers and which are normally active irrigators.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	17
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Murray Darling Basin – works/ studies in basin.		
Hansard Page ECITA:	55 (21 Oct)		

#### **Senator Siewert asked:**

**Senator SIEWERT**—We touched on this in previous estimates and it has been raised in the discussion this morning, sort of tangentially, and that is ecosystem health. We have now done a very comprehensive sustainable yield analysis. I think the work that Tom Hatton has done is very good work, but we do not have the equivalent level of data on ecosystem health. ... Are we going to be undertaking a comprehensive analysis of ecosystem health and ecosystem requirements that complements the sustainable yield work that CSIRO has done?

. . .

**Mr Slatyer**—Senator, as I recall your question, it was really about how our environmental needs are being identified through the basin and progress on that front. ... But we are of course currently doing a significant amount of work ourselves which is both informing the Commonwealth's view but also will be available to the authority to draw on as it goes about that work. ...

**Ms Schweizer**—As Mr Slatyer alluded to, we are doing a series of works across the basin to try to better understand the ecological character of the basin and the key assets. ... I would be happy to table a list of the full sets of work.

Senator SIEWERT—If you could, that would be useful.

#### **Answer:**

The following table summarises the work managed by the Water Reform Division related to the ecological character of the Murray-Darling Basin, which are recently completed or currently underway.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

#### Overview of ecological character works of the Murray-Darling Basin

Water requirements of important wetlands in the Murray-Darling Basin – initial overview assessment.

This project reviewed available information on the watering requirements of Murray-Darling Basin wetlands of international and national importance (i.e. those listed under the Ramsar Convention or in the *Directory of Important Wetlands in Australia*)

Review and gap analysis of information on environmental water requirements in the Murray-Darling Basin, excluding important wetlands.

The project reviewed existing information and gaps in available knowledge on the water needs of water-dependent ecosystems in the Murray-Darling Basin. This project compliments the project commissioned above. The project addresses other wetlands, in-stream systems and ecosystems that support EPBC listed aquatic species and migratory waterbirds.

Water Quality Objectives of the MDB

This project developed an Inventory of water quality objectives and targets set within the Murray-Darling Basin (MDB) and their alignment with the NWQMS

MDB Sustainable Yields Project

CSIRO was contracted by the National Water Commission (NWC) in 2007 to report on current and future water availability in the Murray-Darling Basin. The study identifies changes to flood frequencies and end of system flows as a result of diversions for other uses.

Murray-Darling Freshwater Research Centre – various projects including:

- 1) Online guide to the Identification and Ecology of Australian Freshwater Invertebrates
- 2) Determining Watering Regimes to Protect Floodplains under Hyper-Drought Conditions

Projects under the Raising National Water Standards (RNWS) to achieve more effective and efficient management of environmental water, including the conservation of high value water ecosystems. Announced projects include:

- Development and implementation of the framework for the assessment of river and wetland health
- National coordination of the framework for the assessment of river and wetland health (FARWH)

  Trials
- Testing the framework for the assessment of river and wetland health (FARWH) in NSW wetlands
- Hydro-ecological relationships and thresholds to inform environmental flow management and river restoration
- Water-dependent ecosystems Parts 1 & 2
- Ecological outcomes of flow regimes
- Case studies of sustainable levels of extraction and groundwater dependant ecosystems
- Minimising environmental damage from wetland recovery from inland wetlands
- National water resource assessment using waterbirds
- Optimising environmental watering protocols to maximise benefits to native fish populations
- Additional trials to support development of a national framework for the assessment of river health

Development of Ecological Character Descriptions (ECDs) for each Ramsar site, using the National Framework and Guidance for Describing the Ecological Character of Australian Ramsar Wetlands. ECDs inform future management and monitoring of these sites and provide an enhanced information base against which to assess potential impacts of actions on internationally important wetlands.

Riverland Ramsar site Ecological Character Description

Development of an ecological character description of the Riverland Ramsar site

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

#### Overview of ecological character works of the Murray-Darling Basin

Ramsar Boundary Review for the Coorong, Lakes Alexandrina and Albert & Coongie Lakes Ramsar Site

Ramsar Management Plan for the Coorong, Lakes Alexandrina and Albert Ramsar Site
Completion of Ramsar Management Plan for the Coorong, Lakes Alexandrina and Albert Ramsar
Site

Review of Limits of Acceptable Change for the Coorong, Lakes Alexandrina and Albert Wetland

Description of the Ecological Character of the Macquarie Marshes Nature Reserve Ramsar site in

NSW

Ecological Character Description (ECD) of the Currawinya Lakes Ramsar site

ECD for the NSW Central Murray State Forests Ramsar Site and documentation for the possible Toorangaby site extension

Development and implementation of Ramsar site management plans, in accordance with the Australian Ramsar Management Principles as outlined in Schedule 6 of the EPBC Act Regulations.

Developing a Ramsar Rolling Review approach to report on the condition of Australia's Ramsar sites and inform future management and investment priorities.

Australian Government funding to examine and prepare conceptual models about ecological responses in waterbirds, fish, vegetation, and invertebrates to environmental flows in the Macquarie Marshes.

Australian Government funding to examine ecological responses in fish, vegetation, and invertebrates to environmental flows in the Lower Gwydir River and Gingham Water Course and to prepare flow management planning tools that are informed by those responses.

Monitoring Ecological Outcomes in Narran Lakes

Monitoring of ecological outcomes of a waterbird breeding event during 2008 including the undertaking of a suite of 6 sub-projects examining the response of fish, waterbirds, hydrology and vegetation to the event.

Managing Environmental flows in an agricultural landscape: the Lower Gwydir floodplain. This project aims to guide industry managers and the community on how to maximise environmental flow benefits on the Lower Gwydir floodplain and to develop a transferable guide on management of aquatic floodplain ecosystems for use in other catchments with similar wetlands.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	18
Output:	3.1		•
Division/Agency:	Water Efficiency Division		
Topic:	Levels of production on land and entitlement purchased		
Hansard Page ECITA:	57 (21 Oct)		

#### **Senator Nash asked:**

- (a) you can take on notice for the committee and gain from the appropriate NSW department, the current levels of production.
- (b) can I move then to the issue of the entitlement that was bought and the allocation and three very clear questions. Could I have the total amount of the entitlement purchased;
- (c) the current allocation or, if there is not one, to date the most recent allocation that was granted against the purchase of that entitlement; and
- (d) what the government is assuming an average allocation will be against the purchase of that entitlement?

#### **Answers:**

- (a) The cropping program for the past season is as follows:
  - 258 Ha of sorghum
  - 116 Ha of grit corn
  - 1097 Ha of wheat

Livestock production is as follows:

- 12,000 Breeding ewes
- 7,000 Wethers
- 5,000 Replacement ewes
- 800 Breeding cows
- (b) The total amount of entitlement purchased was 15,794 ML.
- (c) These entitlements are for unregulated water. As such, there are no allocations against them and subject to flow conditions the full entitlement may be drawn.
- (d) The Department has received updated estimates of the average allocations to these entitlements from the NSW Department of Water and Energy. According to that modelling, the purchase of 'Toorale Station' will return an average of 26-29 GL of water to the Darling River each year.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	19
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Murray Darling – Sustainable Yield Study		
Hansard Page ECITA:	64 (21 Oct)		

#### **Senator Heffernan asked:**

**Senator HEFFERNAN**—If we get between 3,500 and 11,000 megs decline in run-off—that is the science prediction. God knows what part of it is right.

**Senator Wong**—This is the sustainable yield's best, medium, worst scenarios you are talking about?

**Senator HEFFERNAN**—Yes.

**Senator Wong**—There are a range of scenarios there. We do not know, at this point—you are correct— which of those—

**Senator HEFFERNAN**—So we could spend \$10 billion and still have zero allocation for low-security licences; that is true.

**Senator Wong**—We do not know which of the climate—

**Senator HEFFERNAN**—So why don't we model it?

**Senator Wong**—We are modelling, Senator. That is what the sustainable yield study is—**Senator HEFFERNAN**—Can I put all of that on notice.

#### **Answer:**

For the Murray-Darling Basin Sustainable Yields Project, the CSIRO has been modelling water availability and use under different climate change scenarios, assuming current development conditions and probable future development. Water use was based on the existing water sharing plans that include high and general security entitlements. The CSIRO has produced and released reports for individual catchment regions within the Basin, and a report that synthesises modelling across the whole-of-the Basin. Modelling in individual catchments under the various scenarios suggests that there may be substantial increases in the number of years where there are 0 per cent allocations. However, in the Murray region, for example, modelling across all of the alternate climate change scenarios suggested there would be no time, even under the worst climate change scenario where there would be 0 per cent allocations for low reliability entitlements in 100 per cent of projected years.

The benefit of this modelling by the CSIRO is that it can be used as a baseline from which the new Murray-Darling Basin Authority can model the effect of alternative diversion limits for the Basin Plan. This modelling could provide a strong evidence base for the Plan, and the strongest possible confidence that the limits incorporated into the Plan are appropriate. The relative impact on allocations of alternatives may now be reliably estimated, because their effect can be compared to the impact on allocations if no action is taken as climate change progresses.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	20
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Ref Qon 131 May hearings - MDBA		
Hansard Page ECITA:	66 (21 Oct)		

#### **Senator Nash asked:**

It would just be useful for the committee—and I am happy for you to take this on notice—if we could have a broader definition of both 'high-value environmental assets' and 'achieving value for money', if they are the criteria that you are currently assessing the buybacks on, given that there is no basin plan in place.

#### **Answers:**

Value for money is achieved through considering each of the following three criteria:

- 1. The ability of an entitlement to provide more water in a catchment where scientific evidence indicates more water needs to be recovered for the environment.
- 2. The capacity to deliver water for an environmental benefit.
- 3. The cost of the entitlements offered for sale.

The assessment of environmental value and watering needs, Criterion 1, is determined by considering, for each catchment:

- known key high conservation value aquatic ecosystems and ecosystem services;
- high conservation value aquatic ecosystems are taken to be systems that meet the
  following criteria, with the greater the number of criteria met, the greater the level of
  significance: critical habitat; diversity; distinctiveness, representativeness,
  evolutionary history and naturalness. Ecosystems that meet these criteria typically
  provide critical habitat for water related/dependant matters of National Environmental
  Significance under the EPBC Act.
- ecosystem 'services' provide benefits to the community –including provisioning services, regulating services, cultural services and supporting services. Those ecosystem services which can be enhanced through environmental watering are essentially regulating and supporting services, and are taken to include the following:
- Filtering sediments and nutrients by maintaining wetlands and riparian vegetation;
- Maintaining healthy waterways through providing freshening and dilution flows;
- Habitat maintenance and regeneration; and
- Nutrient and carbon cycling by connecting rivers, wetlands and floodplains.
- the level of water resource allocation/levels of extraction using information from the CSIRO Sustainable Yields project; and
- the health of the key river(s) using the index of hydrological condition from the MDBC Sustainable Rivers Audit (SRA).

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

The capacity of the Commonwealth Environmental Water Holder to deliver water for an environmental benefit, Criterion 2, includes immediate and long-term factors such as:

- The management arrangements and infrastructure required to deliver and use the water entitlement for environmental benefit;
- Whether the entitlement is able to provide water when it is needed;
- Possible water losses through seepage, evaporation and extraction by other licensed users; and
- The relevant state legislation and water sharing plan which govern the use of the water entitlement and provide security over the property right.

The cost of the purchase, Criterion 3, is assessed against a market price benchmark that has been established for entitlements in each of the purchase locations. The price benchmark is set with reference to prevailing market prices in each region.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	21
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Gippsland Lakes Ecological Character Description timing of completion		
Hansard Page ECITA:	68 (21 Oct)		

#### **Senator Siewert asked:**

Is the ecological character report on Gippsland Lakes Ramsar site available? What is the time frame for the peer review process of the report and when is the report likely to be released?

#### **Answer:**

An Ecological Character Description (ECD) for Gippsland Lakes Ramsar site was funded last year under the Coastal Catchment Initiative. This project was managed by the West Gippsland Catchment Management Authority. A tender process is currently underway for a further consultancy to finalise and review this document. This process will ensure that the final ECD meets national standards consistent with the National Framework and Guidance for Describing the Ecological Character of Australian Ramsar Wetlands. The development of the ECD is expected to be completed by the end of July 2009.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	23
Output:	3.1		•
Division/Agency:	Water Reform Division		
Topic:	Coorong and Lower Lakes – funding		
Hansard Page ECITA:	70 (21 Oct)		

#### **Senator Birmingham asked:**

On what basis was the \$200 million selected?

Was that put forward in correspondence from the South Australian government or in discussions?

#### **Answer:**

The South Australian Government submitted their *Murray Futures* proposal to the Commonwealth for consideration through the COAG process for priority state projects under the *Sustainable Rural Water Use and Infrastructure Program*. The department examined the proposal in the context of the Commonwealth investment criteria described in the *State Priority Projects Proposal Guidelines* that were sent to state and territory governments in May 2008. Following discussions between Commonwealth and South Australian officials the original funding proposal from South Australia was then revised.

On 2 July 2008, the Minister for Climate Change and Water, Senator the Hon Penny Wong wrote to the South Australian Premier, the Hon Mike Rann to make an offer of funding which included \$200m for the development and implementation of a feasible and enduring management response to the environmental problems facing the Coorong and Lower Lakes. Premier Rann accepted the Commonwealth offer in writing on 2 July 2008.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	24
Output:	3.2		
Division/Agency:	Water Governance Division		
Topic:	Adelaide desalination plant		
Hansard Page ECITA:	71 (21 Oct)		

#### **Senator Birmingham asked:**

- 1. Was the \$100 million a request of the South Australian Government?
- 2. Was this announcement assessed against any criteria?

#### **Answers:**

- 1. The Prime Minister announced on 14 August 2008 that the Government would be prepared to consider increasing its investment in the Adelaide desalination plant from \$100 million to \$200 million if the South Australian Government decides to double the capacity of the 50 gigalitre plant. The Prime Minister indicated that discussions had occurred with the Premier of South Australia regarding plans for the Adelaide desalination plant. The additional funding offer is consistent with the Government's election commitment to be a financial partner in a desalination plant for Adelaide.
- 2. The South Australian Government project proposal will be assessed against the funding criteria for the National Urban Water and Desalination Plan.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	25
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Water buybacks – water allocations		
Hansard Page ECITA:	75 (21 Oct)		

**Senator Nash**... in relation to the 9.1 gigs of water that have gone through to the register. In terms of process for the committee, at what point do you get the allocation for that amount of water? ...

**Mr Slatyer**—Which state does it [make water allocations] on which date we might have to take on notice.

#### **Answer:**

The States agreed to coordinate the dates that allocation announcements are made after First Ministers agreed to this approach through a recommendation from the Senior Officials Group on Contingency Planning in June 2008.

Allocation announcements for the states are therefore only made on the 1st or 15th of the month or the first business day thereafter. However, if there is no change to the allocations, New South Wales and South Australia do not make an announcement. Additionally, South Australia has publicly stated that it only makes allocation announcements on the 15th of the month (or the first business day thereafter) and not on the 1st of the month.

Allocations may come into effect immediately or on a specified future date.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	26
Output:	3.2		
Division/Agency:	Water Governance Division		
Topic:	Latrobe aquifer		
Hansard Page ECITA:	Written Question on Notice		

#### **Senator Fielding asked:**

- 1. Would the department please advise the progress of the assistance package for Gippsland irrigators dependent on the Latrobe aquifer?
- 2. Has an agreement been reached with the Victorian Government on the assistance package? Please provide details.
- 3. Have any of the 55 Yarram irrigators received assistance from the assistance package? Please provide details.

#### **Answers:**

- 1. The Victorian Rural Finance Corporation wrote to relevant irrigators on 14 November 2008, inviting them to lodge an application for financial assistance under the Latrobe Aquifer Financial Assistance Package. Guidelines for the assistance package can be found at the Victorian Rural Finance Corporation's website: www.ruralfinance.com.au.
- 2. Yes. The Victorian Government is contributing \$1.4 million to a jointly funded \$5 million assistance package that will be managed by the Victorian Rural Finance Corporation.
- 3. No. See the answer to part one above.

Answers to questions on notice

#### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	27
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Foodbowl Modernisation Project		
Hansard Page ECITA:	Written Question on Notice		

#### **Senator Birmingham asked:**

- 1. Does the Commonwealth or Victorian Government have oversight of the Foodbowl Modernisation Project?
- 2. What arrangements are in place with the Victorian Government for the conduct of "due diligence" work on the project and how is this work being undertaken and by whom?
- 3. Is project work being outsourced and, if so, what aspects are being undertaken by external consultants.
- 4. Will these consultants be eligible for future work in relation to the project?
- 5. What progress has been made on the appointment of external consultants?
- 6. Who is conducting or has conducted the appointment process, how much are they being paid?
- 7. What are the critical dates for completion of the assessment?

#### **Answers:**

- 1. The Victorian Government has oversight of the Northern Victorian Irrigation Renewal Project, previously referred to as the Food Bowl Modernisation Project.
- 2. The due diligence assessment for the Australian Government's in-principle agreement to provide 90 percent for the funding for Stage 2 of the project, up to a maximum of \$1 billion, will be carried out by the Australian Government. The cooperation of the Victorian Government, in particular, in the supply of relevant information, will be fundamental to this work and discussions between officials to this end have been held.
- 3. The Department of the Environment, Water, Heritage and the Arts expects to obtain expert independent advice on aspects of the due diligence investigation, such as verifying the estimates of costs and water savings. The final due diligence analysis will be undertaken by the department.
- 4. The Victorian Government will make its own decisions regarding employment of consultants in relation to the project. The Australian Government will ensure appropriate conflict of interest arrangements are in place in commissioning expert advice on the due diligence investigation.
- 5. No external consultants have been appointed at this time.
- 6. Any appointment process will be carried out by the Department of the Environment, Water, Heritage and the Arts, in accordance with its procurement framework.

Answers to questions on notice

# **Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2008

7. The due diligence will be completed before the Australian Government's funding for Stage 2 commences. That date will be determined as part of the business case for Stage 2, which has not yet been prepared by the Victorian Government.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	28
Output:	3.1		
Division/Agency:	Water Governance Division		
Topic:	Four per cent trading cap		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Birmingham asked:**

- 1. In the previous water year, in how many regions was the four per cent trading cap reached?
- 2. Which regions, and in each case when was the cap reached?
- 3. In the current water year, in how many regions has the four per cent trading cap been reached?
- 4. Which regions, and in each case when was the cap reached?
- 5. How many proposed water licence purchase by the Commonwealth have been impeded by the four per cent cap?

### **Answers:**

1-2. In 2007-08, the four per cent limit was reached in the following irrigation districts in Victoria, and trades were subsequently rejected.

Region	Reliability Class
Campaspe Irrigation District	High
Central Goulburn Irrigation Area	High and Low
Murray Valley Irrigation Area	High
Pyramid-Boort	High
Rochester Irrigation Area	High
Shepparton Irrigation Area	High and Low
Torrumbarry Irrigation Area	High

In South Australia, the four per cent limit was reached in Woods Point trust and River Glen trust. These trusts opted not to apply the limit so no trades were rejected.

In New South Wales, the four per cent limit was not reached.

3. The four per cent limit has been reached, or is very close to being reached, in six irrigation districts in Victoria in the 2008-09 water year. In South Australia, Central Irrigation Trust (CIT) has indicated that five of its ten irrigation trusts have reached or are close to reaching the limit for this water year.

The irrigation corporations in New South Wales have advised that the four per cent limit has not been reached so far this water year.

Answers to questions on notice

# Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

4. As at 13 November 2008, the four per cent limit was reached, or is very close to being reached, in the following irrigation districts in Victoria.

Region	Reliability Class
Campaspe Irrigation District	High
Central Goulburn Irrigation Area	High and Low
Murray Valley Irrigation Area	High
Pyramid-Boort	High
Rochester Irrigation Area	High and Low
Torrumbarry Irrigation Area	High

In South Australia, CIT has advised that as at 13 November 2008 the four per cent limit was reached in Kingston and Lyrup trusts. The limit is very close to being reached in Cadell, Moorook, and Loxton trusts.

5. To date, the Commonwealth has had one transfer of water share rejected in the Campaspe Irrigation District of Victoria.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	29
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Living Murray Initiative		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Birmingham asked:**

- 1. To what extent have targets under the Living Murray Initiative been reached for the return of water to key sites in the system?
- 2. To what extent has each party to the initiative met their targets or obligations for the purchase of licences and return of water to the system?
- 3. Please detail the volumes in relation to each target and those that have been met to date.

#### **Answers:**

1. The targets for The Living Murray initiative (TLM) are outlined in Table 1. Table 2 lists confirmed progress at 30 September 2008. Table 3 (volumetric targets) and Table 4 (financial targets) show the extent to which these targets have currently been met.

Table 1: The Living Murray Targets (volumes in Long Term Cap Equivalent (LTCE))

	Australian Government	New South Wales	Victoria	South Australia	ACT	MDBC	Total
Volumetric Target (LTCE)	0 GL	249 GL	214 GL	35 GL	2 GL	0 GL	500 GL
Financial Target (\$m)	\$200m	\$115m	\$115m	\$65m	\$5m	\$200m	\$700m

Table 2: Confirmed Progress at 30 September 2008\*

	Australian Government	New South Wales	Victoria	South Australia	ACT	MDBC	Total
Volume (expressed in ltce)			120 GL	13 GL			133 GL
Expenditure	\$22.77m	\$13.09m	\$13.52m	\$7.54m		\$5.58m	\$62.50 m

<sup>\*</sup> On 29 November COAG released a report on progress with environmental water recovery in the Murray-Darling Basin up to date as at 30 September 2008.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Table 3: Progress Against Volumetric Targets (expressed in LTCE)

	New South Wales	Victoria	South Australia	ACT	Total
Completed projects Listed on the Environmental Water Register	11.6	1.8	13	0	26.4
Interim Listings on the Environmental Water Register*	21.3	120	0	0	141.3
Total Listed on the Environmental Water Register	32.9	121.8	13	0	167.7
Eligible Measures yet to be finalised (Vol. to be confirmed)**	253.9	101	25	0	379.9
Projects Planned (not yet listed)	0	0	0	2	2
Total Potential Volume**	286.8	222.8	38	2	549.6
TLM Volumetric Targets	249	214	35	2	500

<sup>\*</sup> Interim listing can occur when a component of a project is complete or water is available for use but the project has not been finalised. This process allows TLM to access water allocations for these entitlements.

Table 4: Progress Against Financial Targets (expressed in \$ million (\$m))

	$\overline{c}$		0 \				
	Australian Government	New South Wales	Victoria	South Australia	ACT	MDBC	Total
Projects Complete	\$11.811m	\$6.791m	\$3.250m	\$3.978m	0	\$15.504m	\$41.334m
Projects Committed*	\$54.573m	\$35.074m	\$32.282m	\$18.043m	0	\$37.114m	\$177.086m
Projects Pending final Commitment*	\$133.610m	\$72.634m	\$79.406m	\$43.943m	0	\$150.440m	\$480.033m
Projects Planned	0	0	0	0	\$5.000m	0	\$5.000m
Total Potential Expenditure*	\$199.994m	\$114.499m	\$114.938m	\$65.964m	\$5.000m	\$203.058m	\$703.453m
TLM Financial Targets	\$200m	\$115m	\$115m	\$65m	\$5m	\$200m	\$700m

<sup>\*</sup> Final cost of Projects Committed (agreements in place) or Pending Commitment (pending final Agreements – in some cases implementation has commenced) may vary during project implementation. This could be as a result of less than the anticipated volume of entitlement being offered for sale, willing sellers withdrawing from the sale prior to settlement or changes in the cost of infrastructure works.

- 2. The Purchase of licences is only one method of water recovery through TLM. Other methods of recovery include water efficiency measures, infrastructure measures and regulatory measures. The extent to which each party has met its target or commitment to TLM is outlined in <u>Table 3</u> and <u>Table 4</u> of Question 1.
- 3. The volumetric targets for TLM are outlined in <u>Table 1</u> of Question 1. These targets are overall targets for the program and as such have not yet been met. There are no interim targets for TLM. The extent to which these targets have been met is outlined in <u>Table 3</u> of Question 1.

<sup>\*\*</sup> Volumes for projects are confirmed on completion and may be subject to change (e.g. variations in purchase projects, projects not implemented in full or re-scoping of infrastructure projects).

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	30
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Murray-Darling Basin – timetable for water savings		
Hansard Page ECITA:	Written Question on Notice		

# **Senator Birmingham asked:**

- 1. Will the Government be setting out an express, clear and absolute timetable in relation to water savings from infrastructure investments in the Murray-Darling Basin so that we can see an actual intended annual saving in terms of megalitres and gigalitres which will come from deployment of the funding for water infrastructure savings?
- 2. Will there be such a table and, if so, when will it be published?

- 1. The detail of infrastructure projects planned for Murray-Darling Basin states is yet to be developed. However, it is expected that details of water savings will be specified as part of funding arrangements with the government. These details will be reflected in bilateral agreements to be negotiated with each Murray-Darling Basin state.
- 2. As specified in the Agreement on Murray-Darling Basin Reform, bilateral agreements between the government and Basin states will be public documents.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	Question No:	31
Output:	3.2		
Division/Agency:	Water Governance Division		
Topic:	Nyrstar water recycling initiative		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Birmingham asked:**

- 1. Has the Government pursued discussions with Nyrstar regarding their proposal to develop a water recycling initiative in Port Pirie?
- 2. What support has or is the Government providing in relation to this project?
- 3. Is this project considered a high priority for the Government?

- 1-2. The Australian Government has committed close to \$1 million for three water recycling initiatives in Port Pirie, including a project to provide recycled water to Nyrstar in partnership with the Local Council and Local Government Association of South Australia.
- 3. Water recycling is considered high priority for the government.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	32
Output:	3.2		
Division/Agency:	Water Governance Division		
Topic:	Adelaide desalination plant		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Birmingham asked:**

- 1. When will the Government know if its offer of \$100 million to support a doubling of the Adelaide desalination plant has been accepted?
- 2. How long is this offer valid for?
- 3. What production targets does the Government expect the plant to meet?
- 4. When is or was the first \$100 million being provided to the South Australian Government?

- 1. The South Australian Government is currently developing the Adelaide desalination plant proposal for the Government's consideration.
- 2. The National Urban Water and Desalination Plan is funded over six years from 2008-09.
- 3. The operation of the desalination plant is a matter for the South Australian Government.
- 4. Subject to a suitable proposal from the South Australian Government, a funding agreement will be executed which sets out the milestones and payment schedule.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	33
Output:	3.1		
Division/Agency:	Water Governance Division		
Topic:	Restrictions on interregional trade		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Siewert asked:**

Can you comment on the way in which restrictions on interregional trade impact on the ability for water purchased to deliver environmental benefits?

### **Answer:**

Irrigation industry and regional communities are best served by the water market working as openly and as efficiently as possible. A properly functioning water market will contribute to more effective use of Australia's limited water resources by allocating water between competing uses, delivering water where it is most valued and improving water efficiency.

There are a number of trade restrictions, for example the annual four per cent limit on permanent trade out of irrigation areas, that inhibit farmers' capacity to adapt to dryer conditions, and to changing economic circumstances by trading water assets. These types of restriction can also constrain environmental water purchases. In July, the Council of Australian Governments (COAG) stated its ambition to increase the limit from four to six per cent by the end of 2009. In October, COAG agreed to review progress in early 2009.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	34
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Markets versus auctions		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Siewert asked:**

- 1. Can you explain the pros and cons of different mechanisms, such as open markets versus auctions, for delivering environmental water in different circumstances?
- 2. Can you explain the barriers and risks involved in targeting purchases from specific irrigators within a region or system?

#### **Answers:**

- 1. An assessment of the main mechanisms for buying water entitlements is available in the ABARE report, 'Purchasing Water in the Murray Darling Basin'. The ABARE report is included as an appendix to the report presenting the independent assessment of the first phase of water purchasing, which is available on the department's website.
- 2. The ABARE report supports the use of both auctions/tenders and purchases directly from existing markets as they both offer the opportunity to purchase water entitlements at prevailing market prices. This maximises the environmental returns to the available budget.

The department has also developed other purchase mechanisms to complement direct market purchases.

The Australian Government has announced it will work with State Governments to co-fund the purchase of irrigation properties and their water entitlements where these opportunities can enhance environmental outcomes and can be pursued on a value for money basis. These arrangements are best suited to situations where the land has substantial environmental conservation value. The Australian Government financial contribution to the NSW Government for their purchase of Toorale Station was the first example of this approach.

The department has also developed and released guidelines for irrigator led group proposals for the sale of their entitlements and the decommissioning of off-farm infrastructure. This element of the program can take into account irrigator water provider plans for delivery system rationalisation. Groups of irrigators have been

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

invited to submit proposals to the department and these proposals will be pursued if they represent value for money propositions for the Australian Government.

The purpose of the 'Restoring the Balance in the Murray-Darling Basin' program is to purchase water for the environment. The value for money criteria which are used to select purchases allow for prioritised or targeted purchases where they meet water recovery priorities. However, in order to achieve these objectives in the most cost effective manner, current arrangements allow for purchases from the widest possible range of water sources. This is the principle reason for developing complementary water recovery options.

Restricting the regional scope of purchases may reduce the cost-effectiveness of the program by ignoring lower cost water acquisition options. This would also diminish the chances of water being withdrawn from the lowest returning irrigated activities. Cost effectiveness may also be reduced by the additional administrative complexity and costs.

The ability of the Australian Government to make targeted purchases from specific irrigators within a region or system is also constrained by the potential for subsequent trades back into the region to negate the intended purpose of the government's targeted purchases.

Focusing all purchase activity on selected regions would also likely be impeded by the 4 per cent limit on net trade out of regions applying in some Basin states and, in Victoria, the 10 per cent limit on water held by non-landholders.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	35
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Murray-Darling Basin - Audit		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Birmingham asked:**

- 1. When will the Audit of the Murray-Darling Basin be completed, and when will the findings be publicly released?
- 2. Who is conducting the audit and how were they selected or decided upon, how is it being conducted and at what cost?

#### **Answer:**

1-2. The Murray-Darling Basin Commission (MDBC) has prepared a Water Storage Report within the Murray-Darling Basin (MDB). The report compiled is based on storage data provided by the MDB jurisdictions and the MDBC itself. The MDBC published the first Report on their internet site on 31 August 2008. The Murray-Darling Basin Commission on 9 December is expected to ratify that this information will be updated and published quarterly.

A review of the methodology used by the MDBC in compiling its Water Storage Report has been commissioned by the Department of the Environment, Water, Heritage and the Arts (DEWHA). The review report has been completed.

The review was conducted by GHD Pty Ltd. GHD were selected by DEWHA in accordance with the department's procurement framework. The review was undertaken by a series of structured questionnaires and interviews with the MDB jurisdictions, the MDBC and the Bureau of Meteorology. International comparisons were conducted on the same basis with water management agencies is the USA, South Africa and China. The review cost \$49966.40 (inclusive of GST).

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	36
Output:	3.1		
Division/Agency:	Water Reform Division		
Topic:	Murray-Darling Basin – Governor- General visits		
Hansard Page ECITA:	Written Question on Notice		

# **Senator Birmingham asked:**

- 1. Was the Department or any Minister's Office consulted by the Governor-General's office prior to the Governor-General's tour of the Murray-Darling Basin?
- 2. What information was provided in relation to potential sites, towns and regions to visit?
- 3. Which sites, towns and regions were considered as destinations?
- 4. What other assistance is being provided by the Department and/or Minister's office?

- 1. The department was not consulted. The department understands that the Minister's office was notified prior to the visit, but did not provide advice to the Governor-General on the visits itinerary.
- 2. Not applicable.
- 3. Not applicable.
- 4. The department provided a general brief on Murray-Darling Basin reform and water policy issues directly by email to the Governor-General's office. The department understands that the Minister's office did not provide any other assistance.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	37
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Murray-Darling Basin Audit-Minister's Visits		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Birmingham asked:**

- 1. Which towns in the Murray-Darling Basin, and on what dates, has the Minister for Climate Change and Water visited this calendar year?
- 2. On what occasions was the Minister accompanied by the Prime Minister?

### **Answers:**

1. The towns in the Murray-Darling Basin Senator Wong visited, and the dates of those visits are summarised in the table below.

DATE	LOCATION	STATE
21 December 2007	Riverland	SA
28 February 2008	Griffith	NSW
2 April 2008	Goolwa, Strathalbyn and Langhorne Creek	SA
	Mildura	VIC
3 April 2008	Mildura	VIC
	Deniliquin	NSW
	Shepparton	VIC
4 April 2008	Shepparton	VIC
5 July 2008	Lake Alexandrina and the Lower Lakes (Milang)	SA
14 July 2008	Hume Dam	NSW
29 August 2008	Cooma, Wagga Wagga,	NSW
26 September 2008	Riverland	SA
7 November 2008	Tailem Bend	SA

The Minister has also met with numerous Basin stakeholders in Canberra, which is of course in the Murray Darling Basin.

2. Senator Wong accompanied the Prime Minister on his visit to Lake Alexandrina and the Lower Lakes on 5 July 2008 and again on his visit to Hume Dam on 14 July 2008.

Answers to questions on notice

### Environment, Water, Heritage and the Arts portfolio

Supplementary Budget Estimates, October 2008

Outcome:	3	<b>Question No:</b>	38
Output:	3.1		
Division/Agency:	Water Efficiency Division		
Topic:	Exit Grants		
Hansard Page ECITA:	Written Question on Notice		

### **Senator Xenophon asked:**

On 20 September 2008, the Prime Minister announced a new exit grant package to assist small scale irrigators.

- 1. Have further details of that exit grant package been prepared and, if so, when are they expected to be released?
- 2. When is it expected that details regarding how to access the exit grant package will be announced?
- 3. What is the expected take-up of the exit grant package by irrigators?
- 4. Approximately how many irrigators are there in the Murray Darling Basin on properties of 15 hectares or less?
- 5. What is the expected cost of the package if 48 gigalitres of water is yielded for the environment as anticipated?

- 1. Further details on the Murray-Darling Basin Small Block Irrigators Exit Grant Package were released on 2 November 2008.
- 2. Details of how to access the package were announced on 2 November 2008.
- 3. It is very difficult to accurately predict the take up rate of an exit grant package such as this. Based on the Australian Government's previous experience with similar packages, it is anticipated that up to 20 per cent of eligible irrigators on properties of 15 hectares or less in the Murray-Darling Basin will take-up the Exit Grant Package.
- 4. The ABARE analysis of Australian Bureau of Statistics Farm Census data indicates there are approximately 2000 irrigation properties of 15 hectares or less in the Murray-Darling Basin. This estimate is based on properties with an estimated value of agricultural operations of greater than \$40 000 covering the dominant agricultural and horticultural industries in the Murray-Darling Basin.
- 5. Full take up of the \$57.1 million package is expected to yield around 48 gigalitres. The cost of water purchases would be additional to this amount.