



**PUBLIC**

30/10/14



**Minister for Water; Forestry**

Our ref 52-02009

Hon Ken Travers MLC  
Chair  
Estimates and Financial Operations Committee  
Parliament House  
PERTH WA 6000

Dear Chair

**QUESTIONS PRIOR TO HEARING – 2013/14 AGENCY ANNUAL REPORT HEARINGS**

Thank you for your letter dated 9 October 2014 regarding Questions Prior to Hearing submitted by Members of the Legislative Council for the Department of Water.

Please find attached the responses from the Department of Water.

Yours sincerely

Hon Mia Davies MLA  
**MINISTER FOR WATER**

Att

27 OCT 2014

## STANDING COMMITTEE ON ESTIMATES AND FINANCIAL OPERATIONS

### QUESTIONS ON NOTICE SUPPLEMENTARY INFORMATION

2013/14 Annual Report Hearings

#### **Department of Water**

Hon Lynn MacLaren MLC asked –

- 1) *Message from the Director General on page 2; I note the statement on page 3: “the department’s knowledge of the state’s water resources is a foundation for all of our work.” But I also note that little is known about a vast amount of WA’s groundwater. Does the Department sometimes allocate groundwater to licensed water users without knowing whether that amount is sustainable? If not then how is a sustainable amount determined?*

Answer: No. The Department of Water considers the sustainability of all water licence applications according to clause 7 (2) of Schedule 1 of the Rights in Water and Irrigation Act 1914.

Individual licence assessments are supported by the setting of allocation limits for each water resource. Allocation limits for groundwater resources are based on the available hydrogeological information. The department’s groundwater investigation program ensures the level of groundwater knowledge is sufficient to set allocation limits and licence water resources sustainably.

- 2) *I refer to “Overview” on page 11 of the Annual Report, and ask –*

- a) *Goal 3 aims to ensure ‘WA meets national standards in water efficiency and demand management.’ What are these standards?*

Answer: The National Water Efficiency Labelling and Standards (WELS) scheme is Australia's water efficiency labeling scheme that requires certain products (for example showers, tap equipment, flow controllers, toilet/urinal equipment, washing machines and dishwashers) to be registered and labeled with their water efficiency in accordance with the standard set under the national Water Efficiency Labeling and Standards Act 2005. For the WELS scheme to work effectively across Australia, each State reflects the Federal WELS provisions in its own Act. In WA this is currently the Water Efficiency Labelling and Standards Act 2006 (WA).

- b) *Why is the Department's work solely connected to the Government's goal that only focuses on economic activity? Surely it has other responsibilities under other Goals?*

Answer: Within the context of the department's overall performance framework, the agency outcome "Sufficient quality water to support the needs of the community, environment and State Development" most closely aligns with the stated government goal. While some agency programs and functions may also contribute to other goals, the current goal is the most reflective of the department's broader purpose and responsibilities.

- 3) *I refer to "Performance" on pages 24, 25, 27 of the Annual Report, and ask –*

- a) *How can the Department claim it is balancing water source protection with tourism and recreation opportunities when the barriers to these activities were removed from public drinking water source areas that have been deproclaimed? There is no balance, the areas are now solely used for recreation and tourism.*

Answer: The Department of Water is implementing the recommendations of Report 11 of the Standing Committee on Public Administration – Recreation Activities within Public Drinking Water Source Areas (PDWSAs). Recommendation 2 of that report recommends that PDWSAs identified by the interagency collaborative partnership as appropriate for de-proclamation as a PDWSA be used for irrigation and recreation. Consequently across the South-West, there is now a balance between the number of catchments that are protected as drinking water sources and the number of catchments that are no longer required as drinking water sources and have been deproclaimed as PDWSAs. Enhanced recreation and tourism opportunities occur in those catchments no longer required for the provision of drinking water. PDWSAs that are drinking water sources remain protected.

- b) *What is the Department doing in the new water resource management legislative framework to bring water science and urban planning together? Will this result in the Department 'sharing responsibilities with other agencies' as it claims it currently does not do (refer page 20)?*

Answer: The proposed reforms to water resources management legislation do not specifically target this area. However, the consolidation process will support better guidance and clarity for other decision making authorities with respect to water related decisions on urban planning.

The reference to shared responsibilities on page 20 relates to the agency's performance management framework. It applies to services delivered jointly with other agencies and demonstrates how an agency is contributing to other agencies' ability to meet government desired outcomes. Although the Department of Water does not deliver services jointly with other agencies, the Department of Treasury's model annual report for Departments as at 30 June 2014 advises that this item should be reported even if there is a nil return.

- c) *What outcome does the Department hope to get from its \$150,000/year investment and in kind staff resources with the CRC for WSC, and how is the research they are involved in different to previous studies done on the issue of nutrient flows from urban areas into shallow groundwater?*

Answer: The Department of Water's investment, along with those of the other partners will generate \$120 million of research and development projects. The output of the CRC is forecast to guide capital

investments of more than \$100 billion by the Australian water sector and more than \$550 billion of private sector investment in urban development over the next 15 years.

The CRC for Water Sensitive Cities aims to influence the way we build and live in our cities and towns, emphasising the importance of water as a resource that contributes to our quality of life.

Outcomes sought from this work are that cities and towns in WA will be able to:

- Efficiently use the diversity of water resources available to them to securely and confidently meet water demands.
- Enhance and protect the health of urban waterways and wetlands and mitigate against flood risk and damage.
- Create public open spaces that harvest, clean and recycle water, increase biodiversity and reduce urban heat island effects.

One of the CRC's research projects focuses on hydrology and nutrient transport processes in groundwater/surface water systems. This research project was designed in collaboration with the Department of Water and other WA stakeholders to build on previous studies into nutrient flows from urban areas into shallow groundwater and answer key knowledge gaps that still exist. Outcomes of the studies will improve understanding of urban hydrology and contaminant flow pathways, which will inform water sensitive urban design and improve the management of shallow groundwater in the urban environment.

*d) What level of community input was sought to the North West Corridor water supply strategy?*

Answer: The North West Corridor water supply strategy was developed by the Department of Water and the City of Wanneroo in consultation with the developers involved, including their representative organisation the Urban Development Institute (WA), as well as relevant government agencies such as the Department of Planning, Sport and Recreation, Education, Local Government and Landcorp.

*i. What role, if any, did social scientists and economists have in the development of this strategy?*

Answer: Allocation planning undertaken by the Department of Water takes into account social, economic and environmental factors in the development of allocation plans. Groundwater allocations have been developed using models to determine a sustainable yield. The allocation schedule was developed in conjunction with the City of Wanneroo and used best practice design for the public parkland requirements identified in existing structure plans. No external social scientists or economists were employed in the work.

*ii. Was the Office of the EPA involved?*

Answer: The allocations were within previously determined allocation limits and there was no requirement for Office of the Environmental Protection Authority (EPA) input. The Department of Water reports annually to the Office of the EPA on compliance with groundwater reporting conditions and commitments for the area.

*iii. Was the Department of Planning involved?*

Answer: Department of Planning staff attended a briefing and workshop on the project, with much of the structure planning for the corridor complete prior to initiation of the project. This planning had previously identified public parkland requirements in accordance with the Liveable Neighbourhoods (Western Australian Planning Commission) policy.

*e) What are the key issues raised in the feedback from the public to the position paper 'Securing Western Australia's water future'?*

Answer: Key issues included water allocation plans, consumptive pools, access entitlements, competition, water quality, over-allocation, metering and measuring, re-injection of water and equity.

*4) I refer to "Water for Growth" on pages 29,30,31,38 of the Annual Report, and ask –*

*a) Re: the Gnangara – Perth Regional Confined Aquifer Capacity Project, when did these investigations begin, and what is the expected date of completion of the study?*

Answer: The Perth Region Confined Aquifer Capacity (PRCAC) study commenced in July 2012, and is scheduled for completion in June 2016.

*b) In addition to providing information about "the best location for water to be drawn sustainably as well as the best location to inject water back in (as groundwater replenishment)", will the study reveal information about:*

*i. The rate at which the confined aquifer recharges (i.e. in gigalitres per year) and the factors affecting this rate;*

Answer: Yes. The PRCAC study will improve the current understanding of how the confined aquifers are recharged, including the rate of recharge.

*ii. The effect/s on the confined aquifer under different scenarios (e.g. different rates of water abstraction or recharge etc)*

Answer: Yes. The PRCAC study will improve the current understanding of the effects on the confined aquifers under difference scenarios of abstraction and recharge.

*iii. The total volume of the resource?*

Answer: The PRCAC study will improve the current understanding of the volume of the resource.

*c) What water users are accessing the confined aquifer now – e.g. Water Corporation, private licence holders?*

Answer: The confined aquifers are primarily accessed by the Water Corporation, with some abstraction by industry, horticulture and local government.

- d) *Given the Dept has stated in several places that the confined aquifer study will underpin sustainable take of water from the confined aquifer, how can we know, before the study is completed, how much water can sustainably be abstracted?*

Answer: Current sustainable abstraction from the confined aquifers is based on existing information. The new information will enable best management of the available resource by identifying the most sustainable abstraction locations.

- e) *Should we stop taking water out of the confined aquifer until such time as the study is completed?*

Answer: No. Current abstraction is based on best available scientific information and information to support planning for future water sources for Perth and the integrated supply system.

- f) *What return on investment is the government getting from the Ord irrigation scheme? And from the substantial use of water in the mining industry?*

Answer: The Department of Water is not able to respond to this question as it relates to matters outside departmental responsibilities.

- g) *I commend the release of two strategies to guide water supply options and allocation limits in the Pilbara. As the Pilbara regional water supply strategy is designed to guide the future development of towns to ensure they are liveable, how will the strategy do this to contribute to a reduction in the significant number of FIFO workers in this region?*

Answer: Secure water supplies provide support for a permanent population in the Pilbara towns. The Pilbara regional water supply strategy identifies water supply options and actions to meet future water demands in these towns under different growth scenarios.

- h) *The Department acknowledges the long term collaboration with CSIRO on mining by-product suitability as soil amendments to reduce phosphorous runoff. What is holding up the commercialisation and wide spread use of these materials?*

Answer: The Department of Water has worked with CSIRO to develop the phosphorus binding product Phoslock which is now available commercially. The department is continuing to work with CSIRO on using mining by-products as soil amendments, such as in reducing phosphorus runoff from agricultural fields or from subsurface drainage. A trial of the product wrapped around subsurface pipes is underway at present in Abington Estate in Gosnells.

- 5) *I refer to “Actual results versus budget targets” on pages 41 and 42 of the Annual Report, and ask –*
- a) *Re: table on Effectiveness indicators. (See also same table on page 100) Please name the four water resources that were within their allocation limit in 2010–2011 but were no longer within their limit in 2013–2014.*

Answer: Between 2010-2011 and 2013-14 there was a 4 per cent decrease in groundwater resources that were within their allocation limit. The change is due to reducing allocation limits to a more sustainable level in line with declining rainfall and recharge in some south west resources.

- b) *What are the reasons behind the cost overruns on the delivery of drinking water source protections plans and water use allocation plans?*

Answer: With respect to drinking water source protection plans, the higher actual average cost in 2013-14 reflects nine completed reports (two new and seven reviews) which were, on average, larger and more complex than anticipated in the target.

With respect to water allocation plans, the higher average cost in the three years to 2013-14 (compared to the target and the previous year) was primarily due to the added complexity of the plans that were developed, the additional scientific investigations that were needed to inform the plans and the additional stakeholder engagement undertaken to explain the additional science and resolve complex issues.

- b) *I refer to “Significant issues impacting the agency” on page 44 of the Annual Report, and ask –*
- c) *What will be the primary driver(s) of WA’s water consumption doubling by the year 2041, under the projections? It would be useful to show visually the size and location of current and future resources in relation to their use.*

Answer: Water demand projections for most existing uses is based on growth rates according to historic trends. However, the projected doubling of WA’s water consumption by 2041 would occur with ‘trend breaking’ growth for some sectors and some locations. These are irrigated agriculture in the East Kimberley, West Kimberley and South West, mining in the Pilbara and Mid-West, heavy industry associated with mining growth, and urban development in Perth and the Pilbara, South West and Great Southern regions.

- d) *The graph appears to indicate a growth in surface water consumption by the year 2040. Is this due to the expected increase in rainfall and flooding in the state’s north as a result of climate change as the indicators for the southwest are less rainfall and a marked decrease in stream flows?*

Answer: Projected growth in surface water consumption is predominantly related to expansion of the Ord River Irrigation Area.

- e) *The graph also shows a growth in groundwater consumption by the year 2040. From what groundwater areas or aquifers is this expected increased consumption of groundwater to be met?*

Answer: Growth in groundwater consumption is expected for the Canning Basin near Port Hedland and south of Broome, the Northern Perth Basin including Arrowsmith, Jurien and north Gingin, and for fractured rock groundwater resources in the Pilbara region.

*f) Please refer me to the technical study/ies on which this graph is based.*

Answer: The source of this information is unpublished work by the Department of Water based on growth assumptions supplied by the Departments of State Development, Agriculture and Food WA, Planning and Regional Development.

*g) Page 45 refers to the Department working with other agencies including Dept of Mines and Petroleum "to ensure regulatory frameworks for projects with potential impacts on water resources are robust".*

*i) Is any of this work in the public domain?*

Answer: The Department of Water is part of an inter-agency working group developing the *Petroleum and Geothermal Energy Resources (Resource Management and Administration) Regulations 2014*. A consultation draft of the regulations have been released publically.

*ii) How can local communities look into how their local water resources are being protected?*

Answer: The Department of Water publishes numerous reports, and these are available on the department's website. These include:

- Drinking water source protection reports
- Water allocation plans and evaluation reports
- Hydrogeological reports

In addition the water information portal on the Department of Water web site provides access to monitoring and other information across the state.

*h) Will there be public consultation on the draft new water resource management legislation?*

Answer: There is no intention to release a draft Bill. To date there has been extensive and intensive consultation on the scope of the legislation.



7) I refer to “Disclosure and compliance” on page 94 of the Annual report, and ask where are the statistics on gender diversity across the management tiers in the Department?

Answer: This information is not part of the annual reporting framework. Statistics on gender diversity across the department for 2013 and the preceding three years are:

Equity and diversity (% representation)	2010		2011		2012		2013	
Diversity Group	Water	WA public sector	Water	WA public sector	Water	WA public sector	Water	WA public sector
Women in Management Tier 2	20.0%	36.9%	20.0%	35.6%	25.0%	33.7%	0.0%	35.4%
Women in Management Tier 3	14.8%	39.0%	10.7%	40.0%	33.3%	40.5%	33.3%	42.0%
No. of Indigenous Australians (IA)	0.7%	2.9%	0.7%	3.1%	0.7%	3.3%	0.8%	3.0%
No. of people from culturally diverse backgrounds (CDB)	0.5%	13.1%	4.5%	13.1%	11.0%	12.7%	13.3%	12.4%
No. of people with disability (PWD)	0.3%	3.5%	0.5%	4.2%	1.0%	4.8%	6.4%	2.6%
Youth (< age 25)	5.2%	5.5%	3.5%	5.5%	2.3%	5.4%	1.7%	5.1%

\*Source: Annual Report 2014 (DEOPE); Quarterly Entity Profile – June 2012, June 2013 quarter HR MOIR (PSC); June 2010, June 2011 quarter HR MOIR (DoW)