LEGISLATIVE COUNCIL STANDING COMMITTEE ON ESTIMATES AND FINANCIAL OPERATIONS

ANSWERS TO 2020-21 BUDGET ESTIMATES AND 2019-20 ANNUAL REPORT - QUESTIONS PRIOR TO HEARING (ROUND 2)

Department of Water and Environmental Regulation
Hon Tim Clifford MLC asked:

I refer to the $3.3 million spent to-date on water carting, as noted on page 651 of Budget Paper No.2: Budget Statements Volume 2:

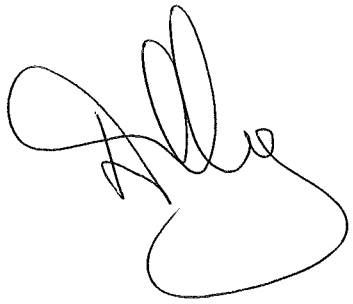
(a) How much funding has been allocated this financial year for dry season water carting; and
Answer: $2.5 million has been allocated for the carting of non-potable water for livestock to support water deficiency declarations.

(b) Does the Department anticipate future water deficiencies to be declared this financial year:
Answer: New water deficiency declarations may be required depending on seasonal conditions.

(i) If so, what preparations are being made?
Answer: The Department of Water and Environmental Regulation continues to monitor conditions relating to rainfall and both on-farm and off-farm water availability.

Together with the Department of Primary Industries and Regional Development, the Department of Water and Environmental Regulation is engaging with shires, farmers and farming groups in areas which have received low winter rainfall and are most at risk of water deficiency.

The Department continues to invest in the improvement of Community Water Supplies, and with the support of the Water Corporation, remains prepared to re-instate the carting of non-potable water for livestock to support water deficiency declared areas if needed.



LEGISLATIVE COUNCIL STANDING COMMITTEE ON ESTIMATES AND FINANCIAL OPERATIONS

ANSWERS TO 2020-21 BUDGET ESTIMATES AND 2019-20 ANNUAL REPORT - QUESTIONS PRIOR TO HEARING (ROUND 2)

Hon Diane Evers MLC asked:

1. Of the estimates provided for monitoring bores and river gauging stations (Budget Paper 2, page 663):

   (a) How much of this is intended to be spent in the south west region.
   Answer: The current capital asset investment for river gauging stations in the south west region is estimated to be $384,000 with an additional $211,000 for maintenance of existing south west river gauging stations.

   The current capital asset investment for monitoring bores is estimated to be $2 million establishing groundwater monitoring bores in the south west region ($500,000 for Myalup and $1,500,000 for Bunbury-Busselton coastal seawater interface investigation projects), with an additional $90,000 for maintenance of existing monitoring bores.

   (b) How much of this will be spent in relation to the rivers and streams identified in the Southern Forest Irrigation Scheme (SFIS);
   Answer: $300,000 of capital asset investment for river gauging stations will be spent in the Warren Donnelly catchment for the upgrading of one river gauging station for long term monitoring.

   (c) How many monitoring bores will be installed in or near the rivers and streams identified in the SFIS;
   Answer: No monitoring bores will be installed by the Department of Water and Environmental Regulation.

   (d) How many river gauging stations will be installed in rivers and streams identified in the SFIS; and
   Answer: One river gauging station will be upgraded for long term monitoring. See 1b.

   (e) Where will the new monitoring bores and gauging stations be located?
   Answer: There will be no new monitoring bores and the upgraded gauging station is located on Manjimup Brook.

2. I refer to the increased spending of $3.9 for Rural Water Deficiency and Community Water Supply in 2020-21 (page 122, BP3 and pg 649 BP2) and I ask:

   (a) Please provide a breakdown of the $3.9 million of expenditure and what it relates to;
   Answer: Additional expenditure of $3.850 million in 2020-21 has been approved for Rural Water Deficiency and Community Water Supply under three components:
   - $2.5 million allocated for the carting of non-potable water for livestock to support Water Deficiency Declarations;

- $0.700 million for improvements to Department-owned Community Water Supplies and dams; and
- $0.650 million for additional Community Water Supply Grants to regional shires and community groups.

(b) What is the total amount budgeted to be spent on Rural Water Deficiency and Community Water Supply in 2020-21;
Answer: $4.537 million.

(c) What was the actual amount spent on Rural Water Deficiency and Community Water Supply in 2019-20:
Answer: $5.03 million in 2019-20.

(i) how much of this relates to water carting alone; and
Answer: $3.4 million.

(d) How much is budgeted per annum across the forward estimates for Rural Water Deficiency and Community Water supply?
Answer: $687,000 per annum to 2023-24. Additional funds may be required as determined by seasonal conditions.

3. I refer to the Spending Changes table in Budget Paper 2, volume 2, on page 649:

(a) Has the funding for the Rural Water Deficiency and Community Water Supply been budgeted in response to the over-subscription National On-Farm Emergency Water Infrastructure Rebate Scheme, and the fact that current funding allocated to Western Australia by the Commonwealth Government in both 2019-20 and 2020-21 has been fully allocated:
Answer: No.

(i) If yes to (a), is Commonwealth Funding expected to be available again in 2021-22;
Answer: Not applicable.

(ii) What are the future State budget implications of the need to address the rural and community water supply deficiencies caused by climate change on an ongoing basis; and
Answer: $687 000 per annum has been allocated to the Department of Water and Environmental Regulation in the State budget across the forward estimates. Additional future funding requirements will be determined by seasonal conditions.

(iii) If no to (a), what is the purpose of the funding?
Answer: The additional funding of $3.850 million has been approved in 2020-21 for three components of Rural Water Deficiency and Community Water Supply:
- $2.5 million allocated for the carting of non-potable water for livestock to support Water Deficiency Declarations;
- $0.700 million for improvements to Department-owned Community Water Supplies and dams; and
- $0.650 million for additional Community Water Supply Grants to regional shires and community groups.

5. I refer to the Spending Changes table in Budget Paper 2, volume 2, on page 649:

(a) What specific projects or activities will the funding provided for Healthy Estuaries WA be used for in the following categories in each financial year between 2020-21 and 2023-24:

(i) reduce nutrient inputs from priority catchments;

Answer:

1 Fertiliser management: continue successful partnership with farmers, catchment groups and the fertiliser industry to use the right type and amount of fertiliser to achieve desired agronomic yields. This will be achieved through evidence-based trials, soil testing, agronomic advice and changes in how fertilisers are spread. The outcome will be reduced losses of phosphorus and nitrogen to waterways.

2 Dairy effluent management: continue work with the dairy industry and individual farmers to implement improved code of practice for effluent management. The outcome will be reduced nutrient and organic matter losses to waterways and reduced fertiliser use.

3 Soil amendment to retain phosphorus in soils: expand trails at paddock scale on selected grazing properties to demonstrate effectiveness. The outcome will be better soil retention of phosphorus and therefore less need for fertiliser and reduced losses to waterways as well improved moisture retention.

4 Stock exclusion fencing along creeklines: outcome will be less erosion and soil loss and reduced nutrients and organic matter going into waterways.

5 New agricultural practices: feasibility and farmer training in regenerative agriculture, holistic management and other practices that improve soil health, retain water and reduce need for chemical fertilisers.

(ii) monitoring and effectively managing waterways; and

Answer:

1 Comprehensive monitoring of catchment water quality through fortnightly sampling of rivers and drains combined with flow measurement. Results reported annually and used to calibrate numerical models, document changes over time and evaluate effectiveness of actions.

2 Estuary water quality monitoring in all target estuaries to report on estuary response to changes in rainfall and nutrient flows and to gain improved understanding. Results used to calibrate estuary response models which are used to guide management actions.

3 Selected measures of seagrasses and macroalgae as indicators of condition in selected estuaries.

4 Surveillance and reporting of microalgae or phytoplankton in rivers and estuaries to allow response to algal blooms and provide health warnings as required.

(iii) building collaboration between community, scientists, government and industry?

Answer: Collaboration is built through a partnership delivery model with catchment and sub-catchment natural resource management groups, industry partners, local government, State agencies, universities and individuals. For example:

- Work in the Vasse Geographe will be coordinated through the Vasse Taskforce which is the partnership established through the Revitalising

Geographe Waterways strategy and chaired by the Hon Dr Sally Talbot MLC, Member for South West Region.

- Work on fertiliser management and dairy effluent management is coordinated through the multi partner Sustainable Agriculture Project Reference Group.

More details on these activities and more can be found on the Healthy Estuaries website.

I refer to the Waterwise Perth Action Plan mentioned on page 651 of Budget Paper 2, volume 2:

(a) What is the rationale behind the creation of each of the waterwise targets, including:

(i) 10% less groundwater use;
Answer: The Department of Water and Environmental Regulation has completed robust scientific modelling and analysis to understand Perth's groundwater balance. Due to climate change and population growth, Perth's groundwater levels have significantly reduced and this is impacting the health of our urban landscapes, including wetlands, lakes, bushlands and urban trees across Perth. To ensure our groundwater use is sustainable and our groundwater dependent environments are protected , we need to bring the groundwater systems back into balance by adjusting our water use to account for the impacts of climate change.

(ii) reducing average scheme water use to 110 kilolitres/person; and
Answer: The Water Corporation, as the principal supplier of water, wastewater and drainage services to more than two million people throughout Perth and Western Australia, is a key partner in the delivery of the Waterwise Perth Action Plan. Scheme water use by Perth residents is currently approximately 125 kilolitres per person per year. The Corporation has an objective to reduce scheme water use, without impacting on quality of lifestyle and amenity, as this is an effective way to reduce the size of new water sources.

(iii) 100% of irrigated open space efficiently, and what constitutes efficient irrigation in this context;
Answer: The 10 year target is that '100 per cent of irrigated open space has been audited and is adopting waterwise management practices.' The rationale behind the target was to reduce water use on irrigated open spaces through achieving best practice irrigation efficiency. Current Department of Water and Environmental Regulation guidance on best practice irrigation is for an annual irrigation rate of 6, 750 kilolitres per hectare and this is applied broadly in the *North West Corridor water supply strategy*. In addition, there are a number of areas of work under the Waterwise Perth Action Plan that are contributing to achieving this target, including investing in infrastructure to support local governments and the not-for-profit sector to improve the water efficiency of sports grounds and other community infrastructure (Action 13); reviewing groundwater allocation plans (Action 14); the Waterwise Golf Program (Action 16); the Waterwise Councils Program (Action 17); and a new Waterwise Grounds Program (Action 21). These programs include collaborative work to build industry knowledge and capacity and increase practices such as metering, hydrozoning, smart irrigation, use of appropriate turf and planting waterwise species. Perth's public open spaces and green

spaces contribute to health outcomes, providing amenity, and helping keep our city cool, liveable and green.

(b) What improvements to the water policy and the land use planning framework will be tested during the implementation of the plan, and how will they be tested;
Answer: The Department of Planning, Lands and Heritage leads Action 27 of the Waterwise Perth Action Plan, to 'consolidate, streamline and improve water-related state planning policy, guidelines and associated processes to strengthen waterwise outcomes at all levels of land use planning'. This is occurring via the review of *State Planning Policy 2.9 – Water resources*.
To support this significant shift, the Department of Water and Environmental Regulation has 'initiate(d) a review to consolidate, streamline and improve the suite of water policies, guidance and technical advice to drive waterwise outcomes' (Action 26). The improvements will be in reshaping and refining the current policy regime and making it a user-centric approach to policy, helping proponents, local governments, developers and other users of the water and land use planning system achieve waterwise outcomes and climate resilience in urban development. Robust stakeholder engagement and co-design with users will test these streamlined approaches. More broadly, the Waterwise Perth Action Plan has a monitoring and evaluation framework that is providing data and evidence to support continuous review and improvement.

(c) Which waterwise urban design and built form outcomes is the Government seeking to achieve and why; and
Answer: Water Sensitive Urban Design is an approach to the planning and design of urban environments that is 'sensitive' to the issues of water sustainability, resilience and environmental protection. The approach integrates the urban water cycle (including potable water, wastewater and stormwater) into built and natural landscapes to provide multiple benefits to society. 'Waterwise' urban design refers to the principles and practices achieved through Water Sensitive Urban Design. Criteria for classifying good practice waterwise urban development is being developed under Action 22 of the Waterwise Perth Action Plan and is based on key principles such as adopting a 'place based' approach that responds to the existing hydrology, ecology, cultural heritage and any existing built form, creating urban amenity and managing urban heat to build resilience to climate change into the future, ensuring community wellbeing and ensuring optimal use of water resources.

Where these approaches truly become realised is through the fourth strategy area of the Waterwise Perth Action Plan 'Government leading by example', with waterwise partner agencies DevelopmentWA, Department of Communities and METRONET showing how waterwise outcomes can be achieved on the ground. Waterwise exemplar projects such as DevelopmentWA's OneOneFive Hamilton Hill and others are demonstrating the value of an across-Government approach to urban development that will achieve waterwise and sustainability outcomes to help Perth and Peel remain cool green and liveable in a drying climate.

(d) As Mike Mouritz, a member of the CRC for Water Sensitive Cities, notes, this is as "an important building block to push further towards being a water sensitive city" - what subsequent steps is the State Government considering to enable Perth to move closer to being a water sensitive city on completion of this two year plan?
Answer: The Waterwise Perth Action Plan is a two year plan with 10 year targets. Work is underway to scope the next two year plan (2021–23) and will be informed by

robust monitoring and evaluation data and evidence, and stakeholder engagement, to identify next steps and areas of focus across government, industry and the community.

7. I refer to the Dry Season Response - Water Carting comment in Budget Paper 2, volume 2 on page 651:

(a) The Department has spent in excess of $3.3 million on direct water carting to date. Given that climate change is likely to continue to impact negatively on water availability in the southern and south-eastern parts of the dryland agricultural regions, does the Government have a long term strategy to deal with this issue:
Answer: The Department of Water and Environmental Regulation continues to invest in the improvement of community water supplies in dryland agricultural areas most impacted by climate change, and with the support of the Water Corporation, remains prepared to cart non-potable water for livestock to support farmers under the State's Water Deficiency Declaration arrangements, as needed.

The Western Australian Government is also seeking a fair share of Commonwealth Government support to assist Western Australian farmers under the national funding programs established to improve water security, including the $100 million per year Future Drought Fund.

Long-term strategies need to focus on both on-farm and off-farm options. The Western Australian Government has proposed practical projects to the Commonwealth Government to respond to the drying conditions associated with climate change, including:

- Water Smart Farms – focussed on enhancement of on-farm water supplies and improved water use efficiency in dryland agricultural areas, through increased adoption and use of desalination, smart dams, improved catchments and evaporation control technology; and

- Large scale enhancement of Agriculture Area Dams and Strategic Community Water Supplies – with focus on expanding the network of new and upgraded (non-potable) community water supplies across dryland agricultural regions, including off-farm/off-stream smart dams and catchments, tanks, groundwater supplies and desalination technology; which will provide improved water security for farmers requiring water for livestock and crop spraying; and improved community access to water for fire-fighting and public amenity purposes.

(i) If no to (a), why not;
Answer: Not applicable.

(ii) If no to (a), is the Government planning to develop a strategy other than carting water in the long term;
Answer: Not applicable.

(iii) If yes to (ii), what approaches will the Government consider other than water carting; and
Answer: Refer to response to (a).

(iv) If no to (ii), why not?

Answer: Not applicable.

8. I refer to the Natural Disaster Resilience Program - Perth Metro Stormwater Drainage mentioned in the spending changes table in BP2, volume 2, page 650:

(a) Which drainage projects is the additional funding for, and what improvements will be made; and
Answer: The National Disaster Resilience Program – Perth Metro Stormwater Drainage grant is a project that combines the drainage datasets already held by local government authorities in Perth into a single dataset.

The combined drainage dataset will primarily be used by emergency services which require rapid access to the location, flow and destination of drains.

The project improves on the existing situation in that emergency services will be able to rapidly access drain information during an emergency incident from a single source.

(b) Are other drainage infrastructure improvements in Perth are being considered to improve disaster resilience after 2020-21:
Answer: No other grants from the National Disaster Resilience Program have been made to Western Australia over the last two years.

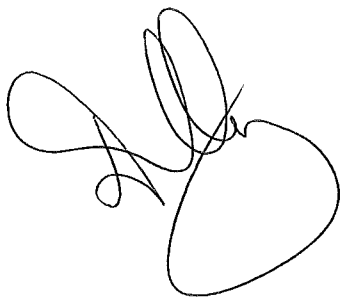
(i) If yes to (b), what drainage infrastructure will be improved, and how will it be improved; and
Answer: Not applicable.

(ii) If no to (b), why not?
Answer: The Water Corporation and local government own drainage infrastructure across Perth and fund improvement works on a priority basis.

10. Why is there a funding increase for the State Groundwater Investigation Program from the 2019-20 actual of $1,961,000 to a forecast $4,151,000 in 2020-21?

Answer: In 2019-20 the Department of Water and Environmental Regulation did not expend as much capital funding because it was scoping future projects, and for other projects it was in the final reporting stages where the capital program had already been carried out.

In 2020-21 more projects are in the groundwater investigation stage and several drilling campaigns will commence. The Department is on schedule to expend $4,151,000 capital budget in 2020-21 and around $4 million in subsequent financial years.



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ANSWERS TO 2020-21 BUDGET ESTIMATES AND 2019-20 ANNUAL REPORT - QUESTIONS PRIOR TO HEARING (ROUND 2)

Department of Water and Environmental Regulation
Hon Diane Evers MLC asked:

11. I refer to the line item Land Acquisition - Land Purchase Priority 1 Areas on page 663 of BP 2, volume 2, and I ask:

    (a) What land will be purchased with the funding provided in 2020-21; and
    Answer: The Department considers land purchase options when other mechanisms to protect public drinking water source areas cannot deliver the required level of water quality and public health protection. For commercial reasons, specific parcels of land being considered for purchase are not made public prior to negotiations.

    (b) What land is forecast to be purchased with the funding outlined in the forward estimates?
    Answer: As above.