Government of **Western Australia**
Department of **Treasury**

INFORMATION REGARDING FORECASTS OF THE PERTH CONSUMER PRICE INDEX (CPI)

As part of negotiations between the Government (represented by the Department of Commerce) and the Civil Service Association (CSA) relating to a replacement Public Sector and General Government Officers General Agreement, delegates of the CSA requested the following information regarding forecasts of the Perth CPI:

- the methodology used to calculate projected growth in the Perth CPI for 2013-14 Mid-year Review as well as the 2014-15 and 2015-16 forward estimates;
- frequency/timelines of how often projected growth is/will be revised;
- comparison of projected and actual Perth CPI; and
- any anticipated impact the use of Perth CPI will have on employees in regional areas.

The Western Australian Department of Treasury (Treasury) is responsible for preparing the forecasts of the Perth CPI. This paper provides information relating to each of these issues.

Methodology for calculating the Perth CPI

The 2013-14 Mid-year Review projects that the CPI for Perth will increase by 2.5% per annum in each of the years 2013-14, 2014-15 and 2015-16.

The 2013-14 Mid-year Review projections for:

- 2013-14 and 2014-15 were derived using Treasury modelling and informed by projections of growth in the national CPI by the Commonwealth Treasury and the Reserve Bank of Australia; and
- 2015-16 were based on the assumption that monetary policy successfully keeps the national rate of inflation within the RBA's target of CPI growth of 2-3% over the economic cycle, with growth expected to be at the mid-point of the target range.

Modelling the 2013-14 and 2014-15 projections included:

- use of an auto-regressive integrated moving average model (ARIMA), which simply, is a statistical time-series approach that uses recent growth trends in a variable (in this case the Perth CPI) to project future growth. While this may be considered simplistic, ARIMA models often out-perform models that specify specific economic relationships between explanatory and explained variables, particularly in the short run; and
- scenario analysis. This involves considering a number of alternative quarterly growth paths for the Perth CPI in coming quarters, and calculating annual average growth under various scenarios.

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Projections of national CPI growth are taken into account. Over the past five financial years (2007-08 to 2012-13), the Perth CPI and national CPI have both grown by 2.6% per annum, with the largest variation between growth of the Perth and national CPI in any given year over the period being just 0.275% (i.e. around one quarter of one percent).

At the time the 2013-14 Mid-year Review was finalised, the Commonwealth Treasury and RBA forecasts for growth in the national CPI were as follows:

	2013-14 %	2014-15 %	2015-16 %
Commonwealth Treasury (August 2013) - Pre-election Economic and Fiscal Outlook Projections Statement	2.5	2.0	2.5
Reserve Bank Of Australia (November 2013) - Statement of Monetary Policy	2.75*	2-3%	#N/A

* RBA publishes June quarter on June quarter estimates rather than four quarters on previous four quarters

The then relevant Commonwealth Treasury and RBA projections incorporated provision for the move of the carbon price from being a fixed price to a floating price.

- The Commonwealth Treasury pre-election projections were based on the previous Government's commitment to move the date of transition from fixed to floating price forward from 1 July 2015 under current legislation to 1 July 2014.
- The RBA's post election projections assume the current legislated transition date of 1 July 2015, but the Statement of Monetary Policy highlighted the recently elected Commonwealth Government's commitment to abolish the carbon price / tax from 1 July 2014.

If the recently elected Commonwealth government is able to fulfil its commitment to abolish the carbon tax from 1 July 2014, it is estimated that the CPI would be 0.7 percentage points lower in 2014-15. Given the uncertainty surrounding the future path of the carbon price, the projections for CPI growth in the 2013-14 Mid-year Review did not explicitly include a provision for a lower (or zero) carbon price, as it is uncertain when this will materialise. However, the risks section of the 2013-14 Mid-year Review highlighted this as an issue (see page p.37 of 2013 14 Mid-year Financial Projections Statement).

All other things being equal, this means that CPI growth is likely to be lower than projected in the 2013-14 Mid-year Review either in 2014-15 (by 0.7 percentage points if the carbon tax is abolished) or 2015-16 (by 0.5 percentage points based on Commonwealth modelling, if the carbon price is retained but moves to a floating rate).

Frequency of Perth CPI projections

The Western Australian government generally publishes CPI forecasts twice a year – in the annual budget, usually in May, and the Mid-year Review, usually in December. Every fourth year, it publishes CPI forecasts prior to the election in the pre-election financial projections statement.

The Treasury prepares CPI forecasts in conjunction with forecasts of other economic aggregates, in the lead up to publication of each budget, mid-year review and pre-election statement.

Comparison of projected and actual CPI

Comparing projected CPI growth in each relevant budget with actual outcomes for the budget year:

- over the past 5 years, Treasury has over-estimated actual CPI by, on average, 0.44 percentage points per annum. Comparable[1] Deloitte Access Economics and the Chamber of Commerce and Industry of Western Australia (CCIWA) projections also over-estimated by 0.44 percentage points over this period;
- over the past 10 years, Treasury has slightly under-estimated actual CPI, by on average, 0.19 percentage points per annum. By comparison, Deloitte Access Economics projections under-estimated actual CPI growth by, on average, 0.55 percentage points. The CCIWA did not publish CPI forecasts 10 years ago.

Impact of the use of the Perth CPI on regional employees

The use of the Perth CPI is not expected to impact on employees in regional areas. Any differences in the rate of price increases in regional areas compared to Perth are taken into account through changes in district allowance payments.

The ABS only produce measures on inflation for capital cities so there is no alternative inflation measure to using the Perth CPI.

The Department of Regional Development and Lands publishes a Regional Price Index (RPI) which compares the differences in the price of selected goods and services between regions and towns with Perth. The RPI is the key variable influencing changes in district allowance payments so the extent to which prices in regional areas grow at different rates to Perth this should be reflected through changes in district allowances.

The Department of Treasury
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[1] These comparisons are based on CPI forecasts published at as close a time as possible to budget forecasts being published.