28 May 2021

**Gladstone Area
Water Board**

Mr Charles Millsteed
Chief Executive Officer
Queensland Competition Authority
GPO Box 2257
Brisbane QLD 4001

Transmission via: www.qca.org.au/submissions

Inflation Forecasting Review 2021

Dear Mr Millsteed

The Gladstone Area Water Board (GAWB) appreciates the opportunity to comment on the Queensland Competition Authority's (QCA) 2021 Inflation Forecasting Review Issues Paper (Issues Paper). GAWB is supportive of this review, given the material nature of the issue for both regulated businesses (i.e. for the purpose of investment signals, financial viability) and customer prices.

GAWB's responses to each of the questions raised in the abovementioned Issues Paper are set out in the attached.

If you wish to discuss any of the issues raised in our submission, please do not hesitate to contact Angela Moody on 3020 8014.

Yours sincerely,

Hugh Barbour
Chief Financial Officer

> **Question 1: Over what term should we forecast the inflationary gain deduction we use to derive the 'return on capital' component of allowable revenues?**

In practice, the most important and desirable feature of any forecasting methodology is that, over time, it reliably generates unbiased estimates of the variable that is being forecast. This feature should be observed regardless of the forecasting term.

In principle, GAWB considers that adopting an inflation term that is the same length as the relevant regulatory period is desirable.

Such an approach is more likely to mean that a regulated entity can expect to receive the nominal rate of return set by the QCA over each regulatory period. This is because the regulated entity can expect to receive the same allowance when the regulatory asset base (RAB) is indexed using actual inflation, as the amount (expected inflation) deducted from total revenue in setting the Annual Revenue Requirements (ARRs) for each regulatory period.

Further, use of an inflation term matching the length of the regulatory period is likely to be more responsive to changes in contemporary financial market circumstances.

> **Question 2: Should we use the same expected inflation estimate (including the use of the same inflation forecasting term) for all purposes when modelling prices, or should we derive a different forecast inflation estimate for each purpose? Under what circumstances should we apply an input cost escalator that differs from our expected CPI inflation measure?**

The pricing principles in S168A of the Queensland Competition Authority Act 1997 (the QCA Act) provides that the price of access to a service should:

> *(a) generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved.*

Recognition of the potential for capital and operating costs to increase over time due to inflationary pressures in relevant markets means that the way in which the QCA develops cost escalation forecasts in establishing a regulated entity's ARRs is an important consideration for each regulatory period.

The QCA Act's objective of providing a regulated entity with a reasonable opportunity to recover its efficient costs implies that a robust inflation forecasting methodology or methodologies should always be applied.

Forecasts of CPI are widely used by Australian economic regulators to escalate labour and material inputs, notwithstanding that it is a measure of consumer price inflation that is not generally likely to be representative of producer price inflation.

This is because CPI measures price changes in a fixed basket of household retail goods and services and other items such as housing, government charges and consumer credit charges. As

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a result, movements in the CPI will only indirectly capture the prices paid by regulated entities for items such as electricity, plant and equipment, chemicals and materials.

As a guiding principle, GAWB considers that the QCA should apply an input cost escalator that differs from CPI inflation when the alternative cost escalator will be more likely to generate an unbiased forecast of inflation in the specific cost item.

The QCA has previously recognised this issue for GAWB in using several different input cost escalators in approving forecast expenditure, including for the 2021-25 price monitoring period. GAWB supports the QCA using input costs escalators that differ from CPI inflation and consider this to be consistent with S168A(a) of the QCA Act.

Question 3: Should we maintain our existing approach to estimating expected inflation?

No, the QCA's existing inflation forecasting approach has persistently over-estimated actual inflation over the past 10 years.

Although GAWB's inflation forecast for the 2021-25 price monitoring period is 2.27%, we have adopted an inflation forecast of 2.50% for most of the last 10 years in line with QCA recommendations.

The figure below shows the inflation forecasts used by GAWB in setting its bulk water prices following QCA pricing determinations, compared to actual CPI over the last decade.
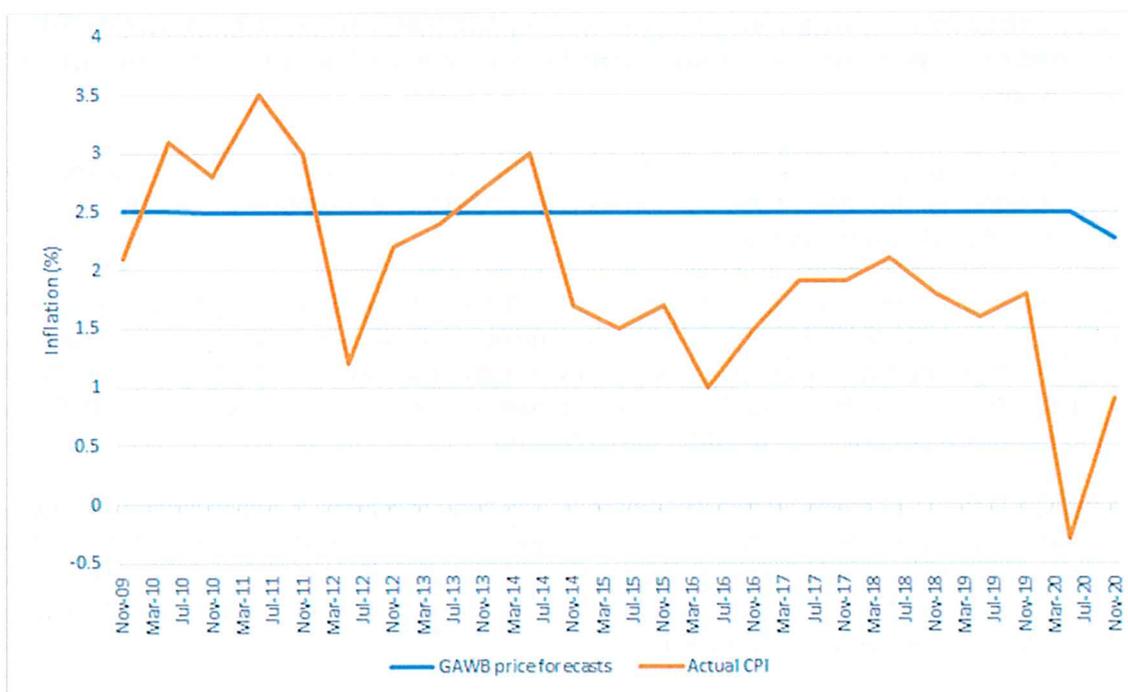
The fundamental problem with the QCA's existing approach is that it has placed excessive weight on the mid-point of the Reserve Bank of Australia's (RBA) inflation target range (ie 2.5%) over a period when actual CPI inflation has been persistently below 2% in annual terms.

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In practice, the existing forecasting approach places an 80% weighting on the 2.5% figure, with the other 20% weighting based on short-term RBA inflation forecasts. Hence, the performance of these inflation forecasts is virtually identical to an approach which adopts the mid-point of the RBA's target range.

GAWB notes that the 2.5% figure is not an RBA forecast, nor is the RBA setting Australian monetary policy with the aim of achieving this figure. There is no strong financial market evidence to suggest that the 2.5% figure has acted as an anchor for long-term inflationary expectations. It is simply the mid-point of a target range.

In practice, the most important and desirable feature of any forecasting methodology is that, over time, it reliably generates unbiased estimates of the variable that is being forecast. The QCA's existing inflation forecasting method has not delivered this outcome for over a decade.

Other desirable, albeit secondary, features of forecasting methodologies include transparency, replicability and simplicity.

In recent times some economic regulators have tended to downgrade the importance of robust, unbiased forecasting methodologies in regulatory processes and favoured methodologies that deliver outcomes consistent with these secondary forecasting features. GAWB considers that is it possible for the QCA to identify an improved inflation forecasting methodology that can meet these secondary objectives without compromising achievement of the overriding objective of unbiased reliability in inflation forecasting performance.

Question 4: If we continue to use short-term RBA forecasts in our forecasting methodology, should we consider using a multi-year transition path to our estimate of long-term inflation expectations? If so, what factors should we consider in our choice of transition path?

GAWB supports the continued use of short-term RBA forecasts in the QCA's forecasting methodology considering that these forecasts provide an important independent publicly available view of short term inflation expectations.

GAWB is not opposed to the use of a multi-year transition path between short and long term inflation expectations assuming that a material divergence between the two exists. However, GAWB notes that it is important to recognise such divergences can arise from a poor inflation forecasting methodology and this should not be confused with true observable market-driven divergences in short and longer term inflation expectations.

In GAWB's view, the main problem with transition paths is they are likely to be arbitrary in nature, generally based on an assumed simple linear transition path. This is the case in the inflation forecasting methodologies currently being used by the Australian Energy Regulator (AER) and Essential Services Commission of South Australia (ESCOSA), with the former using a three-year and the latter a five-year linear transition path.

In recognising the potential arbitrariness of linear transition paths, GAWB acknowledges that identifying a non-linear path is potentially intractable because it requires a level of precision about the future that is practically impossible to forecast. Consequently, GAWB's preference is to use an inflation forecasting methodology that minimises the use of transition paths between short term and long term inflationary expectations to the extent they exist.

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It is important to emphasise that the suitability of employing a transition path to forecast inflation is largely reliant on the appropriateness of the start and end points of that path. That is, in terms of mitigating financial risks, for both customers and the regulated entity, determining reliable and unbiased short term and longer term estimates of inflation is more important than how the interim points between them are set.

> **Question 5: How should we derive medium- to long-term inflationary expectations, particularly over a shorter forecasting period where expected inflation may not reach the midpoint of the RBA's target range?**

Further to our response to Q3, GAWB reiterates that the mid-point of the RBA's inflation target range should not be given a large weighting in any future inflation forecasting methodologies.

Rather, GAWB considers that the best measure of medium to long-term inflationary expectations is likely to be derived from financial market-based indicators. We discuss this issue further in our answer to Q6 below.

> **Question 6: Should we consider the use of market-based measures of inflation expectations as either the primary estimation method or to derive long-term inflationary expectations?**

Yes, market-based measures of inflationary expectations should form a part of the QCA's future inflation forecasting approach. GAWB is open to market-based measures being used as a primary estimation method, or to derive long-term inflationary expectations.

There is evidence to suggest that market-based measures have more successfully captured medium to long term inflationary expectations in Australia over the past decade.

The figure below illustrates the comparative performance of Australian economic regulators' various inflation forecasting methodologies since the beginning of 2010.

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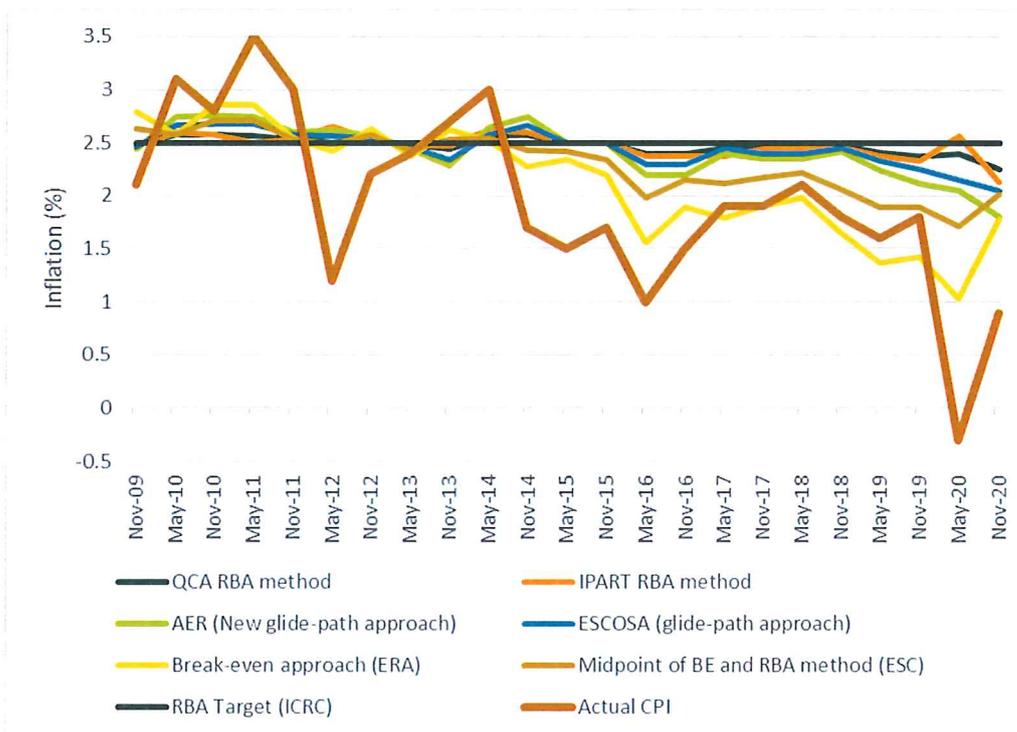
Both the WA Economic Regulation Authority (ERA) and Essential Services Commission of Victoria (ESCV) make use of a market-based measure in their current inflation forecasting methodologies, which is the difference in yields between Australian Government bond yields and Indexed Treasury Bond yields (often referred to as the 'breakeven' method). In addition to the breakeven method, other market-based measures include the inflation swap market and independent financial market forecasters.

Question 7: If we continue to use RBA forecasts in our estimation methodology, are there certain circumstances where the RBA's trimmed mean forecast should be used?

GAWB notes that the use of the trimmed mean or weighted median results in the removal of temporary or one-off impacts on the CPI and provides a better measure of underlying inflation. Over time, this is likely to provide a better basis for inflation forecasting than the use of headline CPI (assuming that CPI is used as a generic escalator rather than an input-specific escalator).

GAWB notes that the AER, in several recent revenue determinations in a departure from its usual practice, used the RBA's 'trimmed mean' inflation forecasts for the first two regulatory years (year-to-June 2021, and year-to-June 2022). The AER explained that due to COVID-19, it opted to use the trimmed mean because it considered that this series better reflected expectations of core (or underlying) inflation and because it smooths transient volatility in the RBA's CPI forecasts.

GAWB supports the QCA being open to use of the trimmed mean at some future point in time in exceptional economic circumstances.

Question 8: When using expected inflation measures for the different purposes in revenue and price modelling, are there local considerations that could make the Brisbane consumer price index (CPI) preferable to the national CPI?

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GAWB is aware of differential movements in the Brisbane CPI compared to the national CPI in the past that have been driven by local considerations. Whilst these variances are typically relatively small, divergences may occur due to localised conditions in consumer retail markets. Given these considerations, the Brisbane CPI is likely to be a better reflection of the inflation experienced by GAWB than the national CPI.

In GAWB's view, local considerations are more likely to be an issue in relation to specific input costs facing GAWB and in such cases, specific input escalators not the CPI are likely to be most appropriate to use.

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