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Real price escalators

A report for Gladstone Area Water Board | 23 May 2024

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Executive Summary

Gladstone Area Water Board (GAWB) is preparing for the next regulatory review of its bulk water prices by the QCA, with prices to apply from 1 July 2025.

As an input to this review, GAWB engaged Frontier Economics to provide analysis and independent advice on forecast escalation rates that should apply to GAWB's expenditure for the period 2025-26 to 2029-30 (inclusive). We also present forecasts for the final two years of the current pricing period.

Context

In making our recommendations, we have had regard to key contextual factors, including:

- **Regional cost pressures** - GAWB is facing a challenging operating environment including continued global supply chain disruptions and competition for labour, materials, and other resources from other industries in the local region (including the emerging hydrogen industry). An ongoing challenge for GAWB is that there are no credible and transparent data sources on costs in regional Queensland, either historical or forecast. This means that GAWB bears the risk that costs in the Gladstone region move differently to statewide measures. A report prepared by Deloitte Access Economics (DAE) provides further information on regional cost pressures, noting that skilled labour shortages are likely to continue in GAWB's 2025-30 regulatory period.[1]
- **QCA's final decisions in the 2020-25 review –** in the QCA's last decision, it expressed a preference for GAWB to apply a base-step-trend approach to the 2025-30 price monitoring period, and to use forecasts that are transparent and publicly available, where possible.

Recommendations

In this report we present escalators over the period 2023-24 to 2029-30, which covers the last two years of the current pricing period and GAWB's 2025-30 pricing period. We have used the most recently available forecasts from Queensland Treasury and the Reserve Bank of Australia (RBA). These forecast periods will be extended by another year by the time the QCA makes its decisions, and this means the escalators in the report will also need to be updated to account for that new information.

Our recommended approach is generally consistent with the approach adopted by the QCA in its current decision for GAWB. We have been asked to apply the QCA's Inflation Forecasting Position Paper[2], as per GAWB's Referral Notice. This permits the use of CPI along with other escalators, where the cost drivers are materially different from CPI inflation. Where escalators other than CPI were applied in the QCA's current decision, we considered whether the cost drivers continue to

[1] Deloitte Access Economics, *Price Investigation: Regional Cost Pressures Report - Gladstone Area Water Board,* May 2024, p 7.

[2] QCA (2021), *Final Position Paper – Inflation Forecasting*, October, p ii, available at: https://www.qca.org.au/wp-content/uploads/2021/10/inflation-forecasting-final-position-paper-october-2021.pdf, accessed 27 March 2024.

be materially different from CPI escalation (to justify continuation of that approach), in accordance with the Position Paper, and whether that approach remains appropriate.

Employee and contract labour

For GAWB's employee and contract labour expenses, we consider that underlying costs drivers are materially different to CPI. We recommend including a premium over general WPI growth to reflect labour shortages GAWB is projected to continue to face over the 2025-30 price monitoring period. This is largely due to competition for labour from the construction industry, which is experiencing rapid growth from major infrastructure and resource projects in the Gladstone region, across Queensland and nationally. As there is no publicly available data measuring wages growth in the Gladstone region, we have used a proxy based on the construction sector WPI growth less the general WPI growth over the last two years. This equates to a premium of 0.15%.

There is considerable uncertainty around how long skilled labour shortages will persist for GAWB. While skilled labour shortages may continue through the entire 2025-30 pricing period, given the uncertainty we have conservatively assumed the premium of 0.15% declines linearly to zero over the 2025-30 price monitoring period. This is consistent with the QCA's previous decision.

Contractors (service delivery) and professional services

For contractors (service delivery) and professional services we recommend continuing with the current QCA endorsed approach of escalating by WPI. These cost categories include a wide range of services, some of which are provided locally, and others from outside the Gladstone region. We consider these categories are not facing the same degree of competition for resources as GAWB's employee and contract labour categories, to justify a premium over WPI. The use of WPI is endorse in the QCA's Position Paper.[3]

Materials, chemicals, and insurance

For materials, chemicals, and insurance we recommend continuing with the current QCA endorsed approach of CPI inflation. While there are limitations for the CPI representing materials costs for GAWB, we consider that CPI is a reasonable general escalator in the absence of a simple, transparent, and accurate forecast of PPI inflation.

Given the challenges of developing simple, transparent and accurate forecasts of PPI inflation, and due to the relatively small proportion chemicals costs comprise of overall opex, we recommend continuing the use of CPI inflation forecasts to escalate chemicals costs.

Based on advice from its insurance broker, GAWB expects above-CPI growth in insurance costs over the entire 2025-30 pricing period. However, GAWB is addressing this through a step change rather than a real price escalator. Therefore, to avoid any double counting, we have applied a CPI escalator for insurance costs.

[3] QCA (2021), *Final Position Paper – Inflation Forecasting*, October, p 15, available at: https://www.qca.org.au/wp-content/uploads/2021/10/inflation-forecasting-final-position-paper-october-2021.pdf, accessed 27 March 2024.

Other materials and services, maintenance and capital costs

For the following cost categories, we recommend continuing with the current QCA endorsed approach of using a composite escalator comprised of:

- WPI (75%) CPI (25%) – for Other materials and services,
- WPI (70%) CPI (30%) – for Maintenance, and
- WPI (70%) CPI (30%) – for Capital expenditure.

For these cost categories, we consider the underlying cost drivers are materially different from CPI inflation. Each has a substantial proportion of labour costs. We do not consider there is a strong basis for changing the current QCA endorsed approach and consider this is in line with the QCA's Position Paper.

Council rates

We recommend council rates continue to be escalated using the current QCA endorsed approach based on expenditure contained in Gladstone Regional Council's most recent Annual Report. We consider the underlying cost drivers for council rates are materially different from CPI inflation and the composite measure continues to be a robust and transparent escalator.

Table 2 presents our recommended escalation rates for the 2025-30 pricing period along with the final two years of the current pricing period derived using the methodologies summarised in **Table 1**. Note that we were not asked to forecast escalation rates for electricity costs. GAWB are separately forecasting electricity costs in nominal terms.

Table 1: Frontier Economics' recommended approach for forecasting escalation factors

Category	Current QCA endorsed approach	Frontier Economics recommendation	Source
Employee expenses	WPI forecast plus premium, reflecting the difference between public sector WPI growth and general WPI. The premium declines linearly to zero over the 2020-25 price monitoring period.	WPI forecast plus premium of 0.15%, reflecting the difference between the construction sector WPI growth and general WPI growth. The premium declines linearly to zero over the 2025-30 price monitoring period.	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland • ABS data on Australian construction sector WPI and general WPI
Contract labour	WPI	WPI forecast plus premium of 0.15%, reflecting the difference between the construction sector WPI growth and general WPI growth. The premium declines linearly to zero over the 2025-30 price monitoring period.	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland • ABS data on Australian construction sector WPI and all sector WPI
Contractors (service delivery)	WPI	WPI	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland

Category	Current QCA endorsed approach	Frontier Economics recommendation	Source
Professional services	WPI	WPI	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland
Materials	CPI	CPI	• RBA
Other materials and services	WPI (75%) CPI (25%)	WPI (75%) CPI (25%)	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland • RBA
Maintenance	WPI (70%) CPI (30%)	WPI (70%) CPI (30%)	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland • RBA
Chemicals	CPI	CPI	• RBA
Insurance	CPI + insurance CPI premium	CPI	• RBA
Capital expenditure	WPI (70%) CPI (30%)	Composite of WPI (weighted at 70%) and CPI (weighted at 30%)	• Queensland Treasury • 10-year average WPI, based on ABS WPI for Queensland • RBA

Category	Current QCA endorsed approach	Frontier Economics recommendation	Source
Council rates	Weightings based on Gladstone Regional Council 2018–19 annual report: • 43% for materials and services (as per 'other materials and services') • 31% for employee costs (as per 'employee costs') • 23% for depreciation and amortisation (CPI) • 3% for finance costs (CPI)	Updated weights based on Gladstone Regional Council 2022-23 Annual Report • 44% for materials and services (as per 'other materials and services') • 31% for employee costs (as per 'employee costs') • 24% for depreciation and amortisation (CPI) • 1% for finance costs (CPI)	• Gladstone Regional Council, Annual report 2022-23

Table 2: Forecast escalators for the period 2023-24 to 2029-30

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Employee expenses	4.90%	3.65%	3.38%	3.10%	2.83%	2.55%	2.28%
Contract labour	4.90%	3.65%	3.38%	3.10%	2.83%	2.55%	2.28%
Contractors (service delivery)	4.75%	3.50%	3.26%	3.01%	2.77%	2.52%	2.28%
Professional services	4.75%	3.50%	3.26%	3.01%	2.77%	2.52%	2.28%
Materials	3.80%	3.20%	2.60%	2.57%	2.53%	2.50%	2.50%
Other materials and services	4.51%	3.43%	3.09%	2.90%	2.71%	2.52%	2.34%
Maintenance	4.47%	3.41%	3.06%	2.88%	2.70%	2.52%	2.35%
Chemicals	3.80%	3.20%	2.60%	2.57%	2.53%	2.50%	2.50%
Insurance	3.80%	3.20%	2.60%	2.57%	2.53%	2.50%	2.50%
Capex	4.47%	3.41%	3.06%	2.88%	2.70%	2.52%	2.35%
Council rates	4.41%	3.39%	3.02%	2.85%	2.68%	2.52%	2.36%

Source: Frontier Economics

1 Introduction and background

1.1 Purpose and scope

GAWB has engaged Frontier Economics to provide analysis and independent advice on the escalation rates, for the years 2023-24 to 2029-30 (inclusive), that should apply to generate forecasts of operating expenditure (opex) and for capital expenditure (capex).

Specifically, GAWB has asked us to develop forecast escalation rates for the following cost categories:

- CPI (to be forecast using the QCA's current preferred methodology);
- employee costs;
- contract labour costs;
- contractors (service delivery costs);
- chemicals;
- other materials and services;
- professional services;
- capex;
- rates (Gladstone Regional Council); and
- insurance.

Forecasts of escalation rates applicable to electricity costs are beyond the scope of this report.

1.2 Context

1.2.1 Regional cost pressures

GAWB has faced a challenging operating environment in recent years due to the ongoing effects of the COVID-19 pandemic on the supply of key inputs, global supply chain disruptions and competition for resources from other industries in the local region.

Regional cost pressures faced by GAWB are discussed further in a report prepared by DAE. That report explains the unique challenges faced by GAWB in attracting and retaining skilled labour, including the need for workers to often commute long distances or relocate from urban centres, and the ability to provide stable careers in a region that has historically been subject to 'boom and bust' cycles.

DAE concludes that competition for skilled labour in the Gladstone region is set to continue over the 2025-30 period due to large infrastructure projects in the mining and energy sectors. This

includes the Central Queensland Hydrogen Hub in Gladstone, with construction expected to occur from 2024-2027.[4]

1.2.2 Minister's referral letter

The Minister's referral letter dated 14 December 2023 [5] mentions that base-year operating expenditures are to be escalated using *Forecast Inflation*, defined as the methodology outlined in the QCA's Inflation Forecasting Position Paper. This Position Paper clarifies that for opex and capex escalation the QCA will:

> *Use expected CPI inflation to escalate opex and capex categories for which the underlying cost drivers are not materially different from CPI inflation. However, we will use input-specific or sector-specific cost escalators where underlying cost drivers are materially different from CPI inflation.* [6]

The methodology employed in this paper is consistent with the QCA's Position Paper in that real price escalators are only applied where these are materially different to expected CPI inflation.

1.2.3 QCA's final decisions in the 2020-25 price monitoring period

The QCA has expressed a strong preference to use forecasts that are transparent and publicly available. For example, in its May 2020 final report on GAWB's regulated prices for the 2020–25 period, the QCA noted:

> *The QCA considers GAWB should explore ways to more transparently demonstrate the derivation of its bottom-up forecasts, or alternatively consider adopting base-step-trend forecasting methods, where appropriate. Simpler, more transparent forecasting methods would support a less intrusive and burdensome regulatory review process in future.*[7]

The QCA also indicated a preference for GAWB to apply a base-step-trend approach to the 2025-30 price monitoring period, and this was also noted in the Referral Notice.[8]

4 Deloitte Access Economics, *Price Investigation: Regional Cost Pressures Report - Gladstone Area Water Board, May 2024, p 7.*

5 The Referral Notice is available on the QCA's website: https://www.qca.org.au/wp-content/uploads/2023/12/referral-notice-gawb-14-december-2023_redacted.pdf, accessed 27 March 2024.

6 QCA (2021), *Final Position Paper – Inflation Forecasting*, October, p ii, available at: https://www.qca.org.au/wp-content/uploads/2021/10/inflation-forecasting-final-position-paper-october-2021.pdf, accessed 27 March 2024.

7 QCA (2020), *Final report Gladstone Area Water Board price monitoring 2020–25, Part A: Overview*, p. 22.

8 See section F of the Referral Notice, available at: https://www.qca.org.au/wp-content/uploads/2023/12/referral-notice-gawb-14-december-2023_redacted.pdf, accessed 21 May 2024.

1.3 Approach

Our approach involved three main steps:

1. Establish criteria to guide our recommendations;
2. Determine the priority price escalators; and
3. Assess alternative approaches (including the QCA's existing approach) for the priority escalators against the criteria.

1.3.1 Criteria for proposed escalators

We used the following criteria to develop our recommendations on price escalators to apply to each of the cost categories.

As far as possible, cost escalators should:

1. **Support prudent and efficient cost recovery:** this means that the escalator should represent a reasonable reflection of the types of cost to which it is being applied.
2. **Preserve the incentive for GAWB to seek efficiencies during the pricing period:** the escalator should in general reflect a relevant industry benchmark rather than simply the actual costs incurred by the business.
3. **Be applied consistently within the regulatory proposal:** if forecasts or escalation rates are used in different areas of the regulatory proposal, then a consistent approach to determining those forecasts or escalation rates should be adopted.
4. **Be consistent with QCA's Position Paper and other relevant decisions:** the approach in QCA's Position Paper should be used unless there are compelling economic reasons to change approach, and doing so would produce materially different outcomes.
5. **Be transparent and simple:** as far as possible escalators should rely on publicly available, readily accessible data that is understandable to GAWB's stakeholders.

These criteria are designed to be consistent with good regulatory practice. We applied very similar criteria is a report we prepared for Seqwater.[9]

We have applied these criteria when developing our recommendations for the cost escalators. In considering each escalator, we have had to balance these sometimes-competing objectives. We have explained how we have done this in each relevant section.

1.3.2 Determining priorities

Given the context for this project outlined in section 1.2, we also applied the following approach to identify the priority price escalators.

1. **Is real price growth expected?** Through a workshop with GAWB we discussed the likely areas of material real price growth in the next pricing period and where underlying cost drivers are materially different from CPI inflation.

[9] Frontier Economics, *Cost escalation factors – A report for Seqwater*, June 2021, available at: https://www.qca.org.au/wp-content/uploads/2021/06/attachment-8-frontier-economics-cost-escalation-factors.pdf, accessed 22 May 2024.

2. **Is this escalator applied to a material proportion of GAWB's costs?** We then considered whether that price escalator is applied to a material proportion of GAWB's opex.
3. **Is the forecast growth in cost better addressed elsewhere in the regulatory submission?** For instance, would the particular increase in costs be better to suited to an opex step change proposal under the Base-Step-Trend framework?

1.3.3 Identified priorities

Based on the three questions outlined above, the following priorities were identified:

- Employee expenses; and
- Materials.

We also discuss capital expenditure escalators.

While GAWB expects insurance costs to increase above CPI (as per the current period set out in **Table 1**), it intends to address this through a proposed step change rather than a real price escalator.

1.4 Structure of this report

The remainder of this report is structured as follows:

- Sections 2 provides an overview of the Consumer Price Index and Wage Price Index which are the main indices used to escalate costs and what the current forecasts of these indices are based on the QCA's current approach; and
- Sections 3 to 5 examines and recommends escalators for each of the priority cost categories.

2 Commonly used price indices

This section provides an overview of the Consumer Price Index (CPI) and Wage Price Index (WPI), which are commonly used to escalate costs.

2.1 CPI

The Australian Bureau of Statistics (ABS) CPI produces a good measure of the inflationary impact on a household's expenses. The CPI measures the price movements in a 'basket' of goods and services that are typically consumed by a household.[10] This basket covers a wide range of goods and services, including:

- Food and non-alcoholic beverages;
- Alcohol and tobacco;
- Clothing and footwear;
- Housing;
- Furnishings, household equipment and services;
- Health;
- Transport;
- Communication;
- Recreation and culture;
- Education; and
- Insurance and financial services.

The ABS measures CPI in each capital city and also produces adjusted measures and sub-indices, providing for more targeted measures of inflationary pressure. The CPI is a widely-used and trusted measure of general inflation. Regulators commonly use actual CPI inflation to:

- Increase prices annually during a regulatory period; and
- Roll forward the regulatory asset base (RAB).

By using CPI in these ways, regulators maintain prices and values in real terms.

2.2 Forecasting CPI

Regulators use forecast CPI inflation to:

- Set the real return on capital allowance;
- Forecast price movements over an upcoming regulatory period (but then use outturn CPI inflation to inflate the price each year); and

[10] The ABS reweights the basket of goods annually for changes in household spending patterns.

- In some instances, estimate cost changes during the regulatory period (i.e., the purpose of this report).

Since the QCA's last decision for GAWB it has reviewed its approach to forecasting CPI inflation, as discussed below.

2.2.1 QCA's approach to inflation forecasting

The QCA reviewed its approach to estimating expected inflation and input cost escalation in 2021. The final position, which the QCA has indicated it will apply to future reviews, is summarised in **Table 3**.

Table 3: **QCA's inflation forecasting approach**

Issue	QCA's final position
Inflation objectives	Maintain the existing inflation objective of targeting a real rate of return on investments in regulated infrastructure assets
Inflation forecasting term for capital revenue purposes	Match the term for estimating expected inflation used for calculating the return on capital with the length of the regulatory period
Different uses of expected inflation	Use a single approach to estimate expected consumer price index (CPI) inflation but base the term over which it is estimated on the relevant purpose of the analysis.
Opex and capex escalation	Use expected CPI inflation to escalate opex and capex categories for which the underlying cost drivers are not materially different from CPI inflation. However, QCA will use input-specific or sector-specific cost escalators where underlying cost drivers are materially different from CPI inflation.
Revenue/price smoothing	Use an estimate of expected CPI inflation over the regulatory term to smooth allowable revenue and prices unless the potential for price shocks over subsequent regulatory periods warrants using different growth rates
Indexing renewals annuities	Use an estimate of expected CPI inflation over a 10-year term to index renewals annuities
Inflation forecasting approach	Derive CPI forecasts using short-term RBA forecasts for the first two years ahead and derive forecasts up to the fifth year ahead using a linear glide path from the RBA's short-term forecast in year 2 to a rules-based anchor-point forecast in the fifth year ahead. Assume the midpoint of the RBA's target range (2.5%) beyond the fifth year ahead when this longer-term forecast is required.

Issue	QCA's final position
Measure of inflation	Use headline CPI, rather than trimmed mean estimates, as the appropriate measure of general CPI inflation in revenue and price modelling, other than in abnormal and transient economic circumstances—when the appropriate measure will be considered on a case-by-case basis at the time of the review process
National or Brisbane inflation	Use national CPI for capital revenue purposes (i.e., inflation deduction and RAB indexation) and use location-specific (Brisbane) cost escalators in cases where there are underlying cost drivers that are materially different to the national CPI inflation measure.

Source: QCA, Inflation forecasting – Final position paper, October 2021, pp 4-5.

2.3 Updated CPI forecast

As summarised in **Table 3**, the QCA's approach would be to obtain the forecasts for year 1 (2025-26) and year 2 (2026-27) for the RBA's latest Statement on Monetary Policy. The QCA would then assume that the rate of inflation transitions over the next three years to an anchor-point value of either 2.75%, 2.5% or 2.25% - depending on the RBA's year 2 forecast.

At the present time, an RBA forecast is available for 2025-26. However, no RBA forecast is currently available for 2026-27. Therefore, we have developed a 'placeholder' forecast using the QCA's method as follows:

- We assume a year 1 rate using the forecast for 2025-26 currently available (i.e., 2.6%);
- We then assume that this rate transitions over the next three years to an anchor point value of 2.5% (per the QCA's method);
- We assume that the year 5 rate (i.e., the year following the completion of the transition) is 2.5%; and
- We calculate the geometric average of these five numbers (per the QCA's method).

Our updated forecast based on the method describe above is presented below in **Table 4** and **Figure 1** using forecasts from the RBA's February 2024 Statement of Monetary Policy.

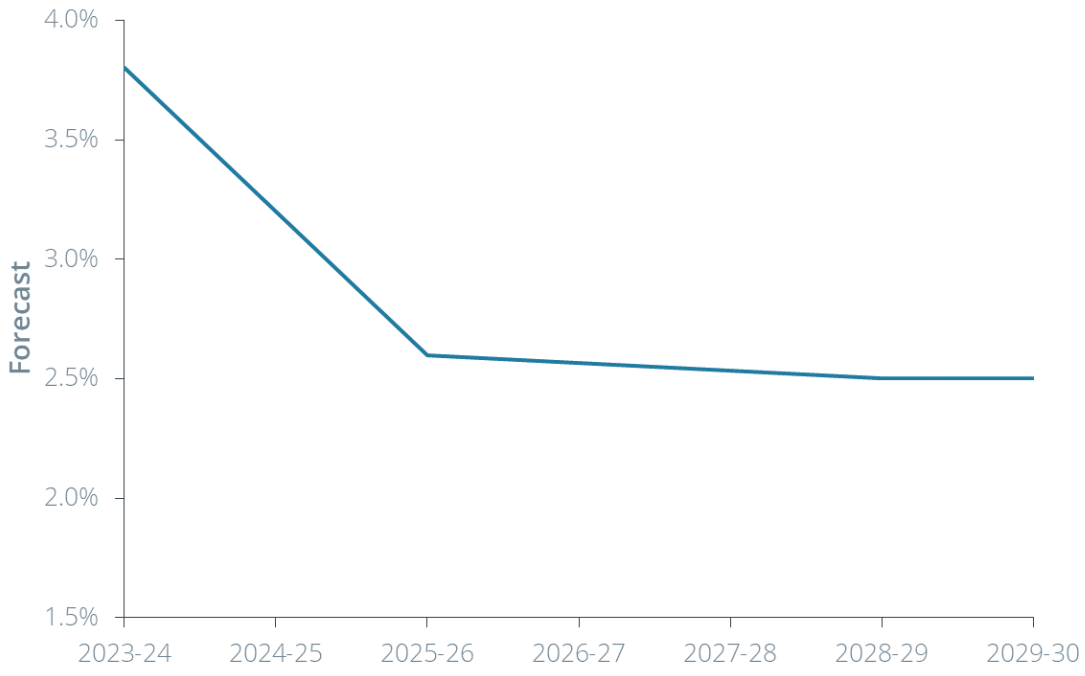
When the QCA makes its final determination for GAWB, it will have access to RBA forecasts for years 1 and 2 and, therefore, will be able to implement its new inflation approach.

Table 4: CPI forecast based on QCA's method (% pa)

Year	Forecast
2023-24	3.80%
2024-25	3.20%
2025-26	2.60%
2026-27	2.57%
2027-28	2.53%
2028-29	2.50%
2029-30	2.50%

Source: RBA Statement of Monetary Policy – February 2024, Frontier Economics.

Figure 1: CPI forecast based on QCA's method (% pa)



Source: RBA Statement of Monetary Policy – May 2024, Frontier Economics

2.4 WPI

Another specific type of cost index is the WPI, which relates only to the labour costs incurred by producers.

The WPI is unaffected by changes in the composition of the workforce from one quarter to the next as only occupations that have prices for the consecutive quarters are included in the construction of the WPI. Over time composition changes are reflected in index weights.

2.5 Forecasting WPI

The QCA currently uses a 10-year historical average as the forecast for wages growth in the later years, beyond the term of the Queensland Government WPI forecast.

In summary the QCA's existing approach to forecast WPI is based on:

- Queensland Treasury's Queensland WPI forecasts (across all industries) where available; and
- the 10-year average of the Queensland WPI for the remainder of the price monitoring period.

2.6 Updated WPI forecast

The updated WPI forecast for the years 2025-30 based on the QCA's current method is summarised in **Table 5**. At the present time, Queensland Treasury forecasts of the WPI are only available for 2023-24 and 2024-25.

Queensland Treasury note that they expect wages growth will moderate in 2024-25 "*as capacity constraints in the labour market begin to ease*".[11]

However, the first year of GAWB's pricing period will be 2025-26. As we do not have Queensland Treasury forecast for the first two years of GAWB's next pricing period, we have adopted the 10-year historical average of the annual change in the WPI (2.28%) as a placeholder forecast. We expect that the QCA's final decision for GAWB would update this placeholder forecast using the latest Queensland Treasury forecasts of the WPI for 2025-26 and 2026-27 (with a historical average for all subsequent years), in line with the QCA's usual approach.

We also note that the approach the QCA adopted for GAWB's current pricing period was to forecast both the WPI and the CPI over a 10-year horizon. However, as explained above, the QCA has recently reviewed its inflation method. The QCA's new approach when forecasting the rate of CPI inflation is to transition gradually from the year 2 forecast to a long-run rate by year 5, rather than assume that the long-run rate will be achieved in year 3, regardless of how high or low the year 2 rate is forecast to be.

We think a similar approach would be sensible when forecasting the rate of inflation under the WPI. In other words, we propose that the forecast WPI rates for years 1 and 2 of the next pricing period should be obtained from Queensland Treasury forecasts (per the existing approach). We propose that the WPI rate of inflation then transition gradually over the remaining years of the pricing period to the 10-year historical average by year 5 of the period. This would avoid sharp changes between years 2 and 3 as can sometimes occur under the QCA's existing approach.

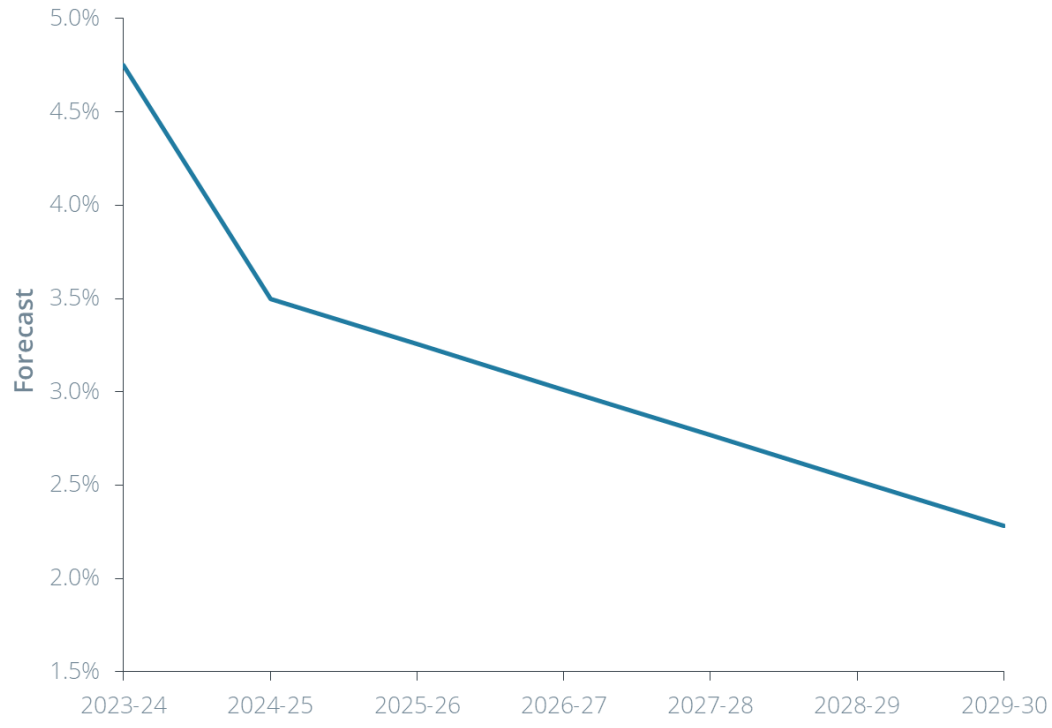
[11] Queensland Treasury, Budget Update 2023-24, p 14.

Table 5: WPI forecast based on QCA's current method (% pa)

Year	Forecast
2023-24	4.75%
2024-25	3.50%
2025-26	3.26%
2026-27	3.01%
2027-28	2.77%
2028-29	2.52%
2029-30	2.28%

Source: Queensland Treasury, Budget Update 2023-24 p 14, Frontier Economics.

Figure 2: WPI forecast based on QCA's method (% pa)



Source: RBA Statement of Monetary Policy – February 2024, Frontier Economics

3 Employee expenses

Employee expenses include GAWB's wages, superannuation obligations, on-costs and training. Employee expenses made up 44.4% of GAWB's operating expenditure in 2022-23 and was the largest single category of opex.

This section sets out options and our recommended approach for escalating employee costs in the 2025-30 price monitoring period.

3.1 QCA's existing approach

GAWB's proposal and the QCA's final decision for the 2020-25 price monitoring period is summarised below.

Table 6: **Current approach to employee costs escalator**

GAWB proposal	QCA final decision
Deloitte Access Economics (DAE) WPI forecast + a premium reflecting the difference between 2018–19 public sector WPI growth and general WPI. The premium declines linearly to zero in 2024–25.	As per DAE method, but updated for QCA's WPI estimate

Source: QCA (2020), Final report Gladstone Area Water Board price monitoring 2020–25, Part A: Overview

The premium reflected GAWB's experience attracting and retaining specialist skills:

> *DAE has added an additional premium to the QLD WPI for GAWB's employee costs. This reflects GAWB's recent experience and the premium it has to pay to attract and retain specialist skills. By the end of the next regulatory period it is predicting that growth in GAWB's employee costs and QLD WPI growth will converge.* [12]

While the QCA did not accept GAWB's WPI method based on DAE's proprietary model, it did include the premium reflecting the excess of the public sector WPI over the general WPI which converged to zero over the 2020-25 period.

The existence of this premium when the last decision was made may reflect a period of public sector wages 'catching up' with the private sector. However, a premium for the public sector WPI cannot continue indefinitely.

[12] GAWB, Pricing Submission to QCA – Part A, p 97.

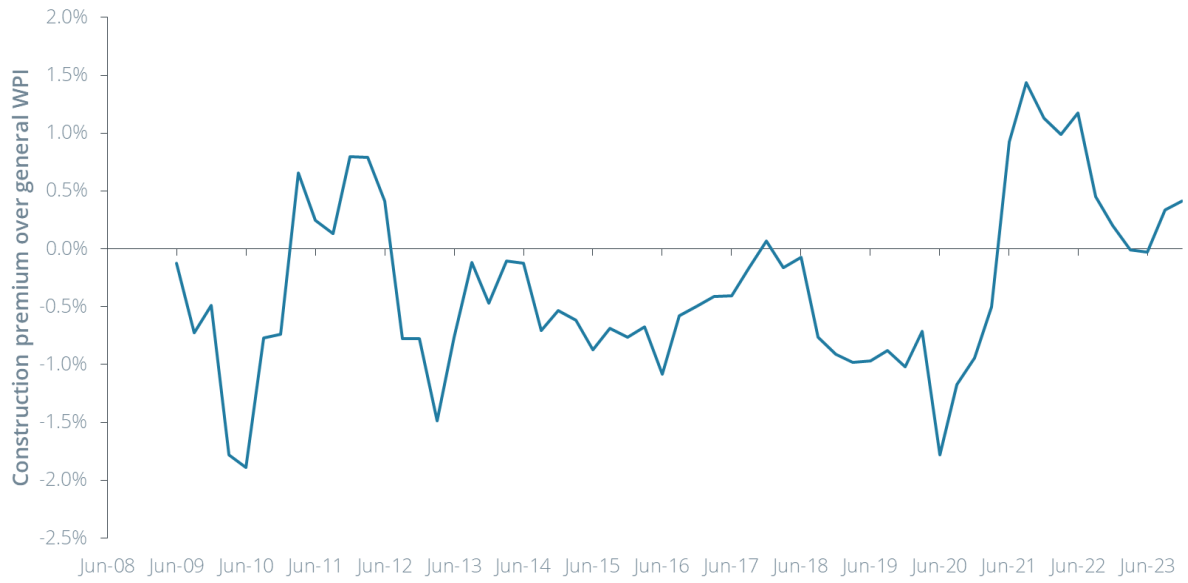
3.2 Regional cost pressures

DAE explains in its latest report to GAWB that the existing skilled labour shortages in the Gladstone region are likely to continue over the 2025-30 pricing period due to competition for skilled labour from major mining and energy projects.[13] This is expected to increase the price of labour faced by GAWB beyond general WPI measures.

To estimate the labour price premium, we have used a similar approach to that applied by the QCA in its last decision. However, instead of using a public sector WPI premium we calculate the construction sector WPI premium over the general WPI. In our view, in the absence of credible and transparent data on regional costs, the construction sector premium most appropriately reflects regional cost pressures faced by GAWB over the 2025-30 period.

The construction sector premium is plotted in **Figure 3** based on WPI sector data for Australia (state-based WPI data is not published at the industry or sector level for Queensland). This shows a construction sector premium emerging from 2021, following the COVID-19 pandemic.

Figure 3: Construction sector premium over the general WPI (Australia)



Source: ABS Cat 6345.0 Wage Price Index, Australia, Frontier Economics

Our recommended approach involves:

- Calculating the annual premium based on the last two years of data (equal to 0.15%) and
- Assuming that this premium declines linearly to zero across the 2025-30 period.

[13] Deloitte Access Economics, *Price Investigation: Regional Cost Pressures Report - Gladstone Area Water Board, May 2024, p 2.*

3.3 Our recommendation

Box 1 Frontier Economics' recommended escalators for employee expenses

We recommend that GAWB escalate employee expenses by:

- The WPI forecast + a 0.15% premium reflecting the 2-year average difference between construction sector WPI growth and general WPI, with the premium declining linearly to zero by 2029–30.

With regard to the assessment criteria outlined in section 1.3.1, our recommendation:

- represents a more suitable proxy for the regional wage pressures faced by GAWB compared to the public sector wage premium applied in GAWB's current decision (criterion 1);
- means GAWB retains the incentive to ensure its next wage increases are as low as possible (and below the allowance) (criterion 2);
- is broadly consistent with the QCA's last decision for GAWB (criterion 4); and
- continues to rely on transparent and publicly available information (criterion 5).

Applying this approach generates the escalation rates for employee expenses, for the period 2023-24 to 2029-30, presented in **Table 7** below.

Table 7: Recommended forecast escalators for employee expenses

2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
4.90%	3.65%	3.38%	3.10%	2.83%	2.55%	2.28%

Source: Frontier Economics

3.4 Other labour-related cost categories

The employee expenses discussed above relate to GAWB's employees. GAWB also has labour-related costs for:

- **Professional services** - for various purposes, including audit, consulting and engineering services.
- **Contract labour** - used to complete office specific roles, including parental leave relief within the business, utilising external agencies.
- **Contractors (service delivery)** - service contractors are engaged to perform maintenance work, waste related services. Service contractors typically quote a fixed price for the work in question.

In the QCA's last decision, GAWB proposed and QCA accepted a WPI-based cost escalator for the above three categories (**Table 8**).

Table 8: Current approach to other professional services, contract labour and contractors

GAWB proposal	QCA final decision
DAE WPI forecast	QCA's WPI

Source: QCA (2020), Final report Gladstone Area Water Board price monitoring 2020–25, Part A: Overview.

We have considered whether any of the above three categories should have the same cost escalator applied as GAWB's employees (i.e., including the premium). The key issue is whether these cost categories are facing the same issues as GAWB's employee costs. We consider there is a reasonable nexus in this regard between GAWB's contract labour and employees.

GAWB provided information on the breakdown of Contractors and Professional Services. It showed a wide range of services including:

- Engineering / drafting;
- Maintenance, condition assessments;
- Surveying;
- Trades;
- Cleaning;
- Environmental services;
- Waste services; and
- Security.

Some of these services are provided locally and others are provided outside the Gladstone region. As such, there may not be the same degree of competition for labour resources as GAWB is currently facing. Given the more diverse nature of professional services and contractors (service delivery), we recommend these continue to use a WPI-based escalator (i.e., not including the premium).

Box 2 Frontier Economics' recommended escalators for other labour related expenses

We recommend that GAWB propose to escalate contract labour expenses by:

- The WPI forecast + a 0.15% premium reflecting the difference between construction sector WPI growth and general WPI, with the premium declining linearly to zero by 2029–30.

We recommend that GAWB propose to escalate professional services and contractors (service delivery) expenses by:

- The WPI forecast.

4 Materials

Materials are a component of GAWB's maintenance activities and are separate to external contractors and internal labour involved in these activities. Materials cover a broad range of non-labour inputs to maintenance activities.

Materials comprise less than 10% of GAWB's opex in 2022-23 and are included in maintenance (7.1%) council charges (1.2%) and minor equipment (0.7%). GAWB expects that competition for materials from related industries in the region will drive up materials prices during the next price monitoring period.

4.1 QCA's existing approach

GAWB's proposal and the QCA's final decision for the 2020-25 price monitoring period is summarised below.

Table 9: **Current approach to materials**

GAWB proposal	QCA final decision
DAE forecast of Brisbane CPI	QCA CPI

Source: QCA (2020), Final report Gladstone Area Water Board price monitoring 2020–25, Part A: Overview, p 25.

As indicated above, no real price changes were assumed for materials costs in the current price monitoring period. In its last pricing submission to QCA, GAWB noted that:

> *The proposed split between WPI and CPI in setting the cost escalation factors for other materials and services reflects the split between labour and materials costs in GAWB's maintenance activities.*[14]

4.2 Forecast based on PPI

We consider that, in principle, materials costs should be escalated using an input Producer Price Index (PPI) rather than the CPI, because an input PPI is intended to reflect the input costs faced by businesses,[15] whereas the CPI is intended to reflect general inflation in the cost of goods and services used by consumers.

14 GAWB, Pricing Submission to QCA – Part A, p 97.

15 PPIs can also be constructed as an output PPI which relates to products produced by establishments classified to a specific industry.

None of the available PPIs perfectly align to GAWB's bulk water supply activities. We consider that the Australian 'Other heavy and civil engineering construction' PPI is the closest comparator. The ABS define this as:

> *This class consists of units mainly engaged in the construction of railway permanent way, dams, irrigation systems, harbour or river works, water or gas supply systems, oil refineries (except buildings), pipelines or construction projects not elsewhere classified, in the on-site assembly of furnaces or heavy electrical machinery from prefabricated components, or in the general repair of such structures, machinery or equipment, or in organising or managing these activities.*[16]

However, there are challenges deriving simple, transparent and accurate forecasts of PPI inflation and the QCA has typically relied on CPI rather than PPI forecasts. In the past, the QCA has rejected PPI approaches because of the lack of relevance to a water business's operating activities. For instance, the QCA has stated:

> *One problem with available indexes, such as the PPI construction cost indexes (referred to by Seqwater), is that they are at best an imperfect match with Seqwater's operating activities. In particular, the building cost indexes used by Seqwater are more closely related to domestic, commercial, industrial and community service building activity than they are to operating and maintaining the civil engineering infrastructure associated with water storage and supply.* [17]

Given these challenges, we recommend GAWB escalate materials costs using the forecast of CPI. It should be noted that CPI still has limitations in accurately reflecting the change in materials costs for a bulk water supplier, particularly in the context of the regional cost pressures faced by GAWB over the 2025-30 price monitoring period.

4.3 Our recommendation

Box 3 Frontier Economics' recommended escalators for materials

- We recommend that GAWB propose to escalate materials costs using the forecast of CPI.

[16] https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-industrial-classification-anzsic/2006-revision-2-0/detailed-classification/e/31/310/3109

[17] Queensland Competition Authority, Seqwater Irrigation Price Review: 2013-17 Volume 1 Final Report, April 2019, p. 206

Applying this approach generates the escalation rates for materials expenses, for the period 2023-24 to 2029-30 as presented in **Table 10** below.

Our recommended CPI escalation rates recognise that this cost category is broad. As noted above, while there are limitations for the CPI representing materials costs for GAWB, for a broad category of costs we consider that CPI is a reasonable general escalator in the absence of a simple, transparent, and accurate forecast of PPI inflation. Therefore, our recommendation for a CPI-based escalator:

- Recognises that CPI offers a reasonable escalator for a broad range of costs (criterion 1);
- Retains the incentive for GAWB to pursue efficiencies to beat the benchmark (criterion 2);
- Will apply consistently within the regulatory framework as we recommend that a market-based CPI measure be used for all purposes (criterion 3);
- Is consistent with the QCA's current approach and recognises that there is a lack of credible and transparent data to move from CPI and offering constancy in approach (criterion 4).

Table 10: Recommended forecast escalators for materials expenses

2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
3.80%	3.20%	2.60%	2.57%	2.53%	2.50%	2.50%

Source: Frontier Economics

5 Capital expenditure

This section discusses the escalator for capital expenditure.

5.1 Capital expenditure

In the QCA's last decision, it agreed with GAWB's proposal to apply a composite measure to escalate capex. It noted:

> *The QCA finds the appropriate cost escalation factor to be applied to GAWB's capex allowance for 2020–25 is the composite of the QCA's measure of forecast WPI (weighted at 70%) and the QCA's measure of forecast CPI (weighted at 30%).*[18]

For capital expenditure, we consider the underlying cost drivers are materially different from CPI inflation as there is a substantial labour component.

We do not consider there is a strong basis for changing the existing approach as this is aligned with criterion 1 and criterion 4. Accordingly, we recommend GAWB maintain the existing approach (**Box 4**).

Box 4 Frontier Economics' recommended escalators for capital expenditure

- We recommend that GAWB propose to escalate the capex allowance using a composite of forecast WPI (weighted at 70%) and CPI (weighted at 30%).

[18] *QCA (2020),* Final report Gladstone Area Water Board price monitoring 2020–25, Part A: Overview, p 71.

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