

Response to KPMG report: Draft Report – GAWB expenditure review 2020

Prepared for Gladstone Area Water Board

25 March 2020

25 March 2020

Angela Moody
Gladstone Area Water Board
By email: AMoody@gawb.qld.gov.au

Dear Angela

Response to KPMG report: *Draft report – GAWB expenditure review 2020*

Thank you for asking Deloitte Access Economics to complete this engagement for the Gladstone Area Water Board (GAWB).

In August 2019, Deloitte Access Economics provided GAWB with cost escalation factors to inform the regulatory submission to the Queensland Competition Authority (QCA). The QCA has engaged KPMG to review GAWB's capital and operating expenditure forecasts including the cost escalation factors.

This report reviews KPMG's draft analysis in relation to the cost escalation factors and provides updated cost escalation factors. The cost escalation factors have been updated based on macroeconomic forecasts that underpin the December 2019 *Business Outlook* publication which incorporates the September 2019 quarter Australian Bureau of Statistics (ABS) National Accounts release.

The outbreak of COVID-19 and the 2019-20 bushfires in eastern Australia will have a significant impact on the economic outlook. Since the forecasts presented in this report were finalised, there have been adverse developments in relation to these situations – in particular, the spread and flow-on effects of COVID-19. The full impact of the bushfires, COVID-19 and the related stimulus measures are not captured in the forecasts presented in this report. These forecasts should be treated with caution against a backdrop of heightened uncertainty around the economic outlook.

Yours sincerely,



David Rumbens
Partner
Deloitte Access Economics Pty Ltd

Contents

| | | |
|------|--|----|
| 1 | Response to KPMG report: <i>Draft Report – GAWB expenditure review 2020</i> | 5 |
| 1.1 | Introduction | 5 |
| 1.2 | Summary of KPMG’s advice on cost escalation factors | 5 |
| 1.3 | CPI | 6 |
| 1.4 | Employee costs and contract labour costs | 7 |
| 1.5 | Maintenance: contractors (service delivery) and other materials and services | 7 |
| 1.6 | Electricity | 7 |
| 1.7 | Chemicals | 9 |
| 1.8 | Professional services (engineering) | 10 |
| 1.9 | Capex | 10 |
| 1.10 | Rates (Gladstone Regional Council) | 11 |
| 1.11 | Insurance | 12 |
| 1.12 | Summary of updated cost escalation factors | 13 |
| | Limitation of our work | 14 |
| | General use restriction | 14 |

Charts

| | |
|--|----|
| Chart 1.1 Chemicals PPI; comparison to crude oil prices and Brisbane CPI | 10 |
|--|----|

Tables

| | |
|--|----|
| Table 1.1 Summary of KPMG’s recommended changes to nominal cost escalation methods | 6 |
| Table 1.2 Brisbane CPI (all groups), previous and updated nominal cost escalators | 6 |
| Table 1.3 Employee costs and contract labour costs, previous and updated nominal cost escalators | 7 |
| Table 1.4 Maintenance costs, nominal cost escalators | 7 |
| Table 1.5 Electricity cost escalation factors, previous and updated nominal cost escalators | 9 |
| Table 1.6 Correlation coefficient between Basic Chemical PPI and selected series, to 2018-19 | 9 |
| Table 1.7 Chemicals cost escalator, previous and updated nominal cost escalators | 10 |
| Table 1.8 Capex, previous and updated nominal cost escalators | 11 |
| Table 1.9 Gladstone regional council cost proportions, 2017-18 and 2018-19 | 12 |
| Table 1.10 Cost escalation factors for council rates, previous and updated nominal cost escalators | 12 |
| Table 1.11 Cost escalation factors for insurance, previous and updated nominal cost escalators | 12 |
| Table 1.12 Nominal cost escalation factors | 13 |

1 Response to KPMG report: *Draft Report – GAWB expenditure review 2020*

1.1 Introduction

Deloitte Access Economics has prepared this report to assist the Gladstone Area Water Board (GAWB) to respond to the Queensland Competition Authority's (QCA) draft decision on its pricing proposal and in particular KPMG's *Draft Report – GAWB expenditure review 2020*.¹

In August 2019, Deloitte Access Economics provided GAWB with cost escalation factors to inform the regulatory submission to the QCA. The QCA has engaged KPMG to review GAWB's capital and operating expenditure (capex and opex) forecasts including the cost escalation factors.

This report sets out responses to the analysis prepared by KPMG in relation to the cost escalation factors. This report is limited to the issues that relate to cost escalation factors prepared by Deloitte Access Economics and should not be considered a full review of KPMG's report.

1.2 Summary of KPMG's advice on cost escalation factors

1.2.1 Application of cost escalation factors

Deloitte Access Economics has provided updated annual cost escalation factors for the period from 2019-20 to 2024-25 as well as average cost escalators for the period from 2020-21 to 2024-25 calculated as the compound annual growth rate (CAGR) of the annual escalators. These updated forecasts are based on the macroeconomic forecasts that underpin the December 2019 *Business Outlook* publication which incorporates the September 2019 quarter Australian Bureau of Statistics (ABS) National Accounts release (the earlier cost escalation factors provided by Deloitte Access Economics were based on the March 2019 *Business Outlook* publication).

The outbreak of COVID-19 and the 2019-20 bushfires in eastern Australia will have a significant impact on the economic outlook. Since the forecasts presented in this report were finalised, there have been adverse developments in relation to these situations – in particular, the spread and flow-on effects of COVID 19. The full impact of the bushfires, COVID-19 and the related stimulus measures are not captured in the forecasts presented in this report. These forecasts should be treated with caution against a backdrop of heightened uncertainty around the economic outlook.

1.2.2 Summary of advice on individual cost categories

KPMG's recommended changes to escalation methods for individual categories for the period 2020-21 to 2024-25 are summarised in Table 1.1. Each cost category is discussed separately in this report.

¹ KPMG, Draft Report – GAWB expenditure review 2020 (2020) < <https://www.qca.org.au/project/urban-bulk-water/gladstone-area-water-board/price-monitoring-2020-25> >

Table 1.1 Summary of KPMG’s recommended changes to nominal cost escalation methods

| | Deloitte Access Economics method | KPMG recommended method |
|--|---|---|
| <i>Consumer Price Index (CPI)</i> | DAEM forecast* | DAEM forecast |
| <i>Employee costs</i> | QLD Wage Price Index (WPI) & premium | QLD WPI & premium |
| <i>Contract labour costs</i> | QLD WPI | QLD WPI |
| <i>Contractors (service delivery)</i> | QLD WPI | QLD WPI (refer to ‘maintenance’) |
| <i>Electricity</i> | Component forecast (CPI based) | Component method (negative escalator) |
| <i>Chemicals</i> | DAEM Crude oil price (lagged) | Brisbane CPI |
| <i>Other materials and services</i> | 75% QLD WPI, 25% Brisbane CPI | Refer to ‘maintenance’ |
| <i>Professional services (engineering)</i> | QLD WPI | QLD WPI |
| <i>Capex</i> | 70% QLD WPI, 30% Brisbane CPI | Brisbane CPI |
| <i>Rates (Gladstone Regional Council)</i> | Component forecast (using 2017-18 council cost proportions) | Component forecast (using 2018-19 council cost proportions) |
| <i>Insurance</i> | Brisbane CPI + observed historical premium | Brisbane CPI + observed historical premium + asset valuation adjustment |
| <i>Maintenance</i> | N/A | 70% QLD WPI, 30% Brisbane CPI |

Source: Deloitte Access Economics and KPMG. The Deloitte Access Economics method above aligns with the report dated 15 August 2019.

*Deloitte Access Economics Macroeconomic Model

1.3 CPI

We have provided updated annual CPI (Brisbane, all groups) forecasts for the period from 2019-20 to 2024-25 based on the macroeconomic forecasts that underpin the December 2019 *Business Outlook* publication.

Table 1.2 Brisbane CPI (all groups), previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|---|
| Previous | 1.75% | 2.21% | 2.33% | 2.46% | 2.26% | 2.16% | 2.28% |
| Updated | 1.94% | 1.75% | 1.99% | 2.24% | 2.38% | 2.26% | 2.13% |
| Difference (percentage points) | 0.19% | -0.45% | -0.34% | -0.21% | 0.12% | 0.10% | -0.16% |

Source: Deloitte Access Economics

1.4 Employee costs and contract labour costs

KPMG considers Deloitte Access Economics' proposed escalators for employee costs and contract labour costs to be reasonable (p. 148).

We have provided updated annual Queensland WPI forecasts for the period from 2019-20 to 2024-25 based on the macroeconomic forecasts that underpin the December 2019 *Business Outlook* publication.

Table 1.3 Employee costs and contract labour costs, previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|---------|---------|---------|---------|---------|---------|----------------------------------|
| Previous | 2.98% | 3.18% | 3.41% | 3.39% | 3.16% | 2.91% | 3.21% |
| Updated | 2.73% | 2.64% | 3.09% | 3.51% | 3.28% | 3.06% | 3.12% |
| Difference (percentage points) | -0.26% | -0.55% | -0.32% | 0.11% | 0.13% | 0.15% | -0.09% |

Source: Deloitte Access Economics

1.5 Maintenance: contractors (service delivery) and other materials and services

In escalating maintenance opex, GAWB has specified a portion of maintenance spend as services (70%) and the remainder as materials (30%). GAWB has applied Deloitte Access Economics' *contractors (services delivery)* cost escalator to the services portion and *other materials and services* escalator to the materials portion.

KPMG notes that *other materials and services* is a composite escalator reflecting a split of labour and materials (p. 136). It would therefore be more appropriate to apply an escalator that is 70% WPI based (for services) and 30% Brisbane CPI based (for materials).

Table 1.4 Maintenance costs, nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|----------|---------|---------|---------|---------|---------|---------|----------------------------------|
| Previous | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Updated | 2.07% | 2.03% | 2.51% | 2.96% | 2.93% | 2.82% | 2.65% |

Source: Deloitte Access Economics

1.6 Electricity

Deloitte Access Economics previously provided a cost escalator for electricity based on figures reported in Residential Electricity Price Trends (AEMC 2018).² These figures were augmented by information gathered from the Powerlink and Ergon Energy's Regulatory Proposal 2020-25.³ Brisbane CPI was used to project cost escalators beyond the dates covered by the AEMC report (i.e. after 2023-24).

² Australian Energy Market Commission, Residential electricity price trends 2018 (2018)
<<https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2018>>

³ Ergon Energy, Regulatory Proposal 2020-25 (2019)
<https://www.aer.gov.au/system/files/Ergon%20Energy%20-%20201.004%20-%20Regulatory%20Proposal%202020-25%20-%20January%202019_1.pdf>

KPMG raises a number of issues in relation the estimation of electricity opex (pp. 136-142). In summary these include:

- A Base year (2020-21) electricity opex estimate of \$3.0 million — KPMG states “it is not clear how the amount for 2020-21 has been derived, or if it reflects expected falls in electricity prices”.
- B The escalation factors used in the first two years:
 - a First, since providing GAWB with our cost escalation factors, AEMC has released its 2019 Residential Electricity Price Trends report. This report and AER’s Draft Determination on the QLD distribution network tariffs, projects significant declines in Queensland electricity pricing between 2019-20 and 2021-22.
 - b Second, KPMG was not able to replicate the Deloitte Access Economics’ approach in applying a forecast 4.5% fall (in real terms) in network costs from 2019-20 to 2020-21 as proposed by Ergon Energy.
- C GAWB has forecast electricity costs by identifying step changes in costs in 2020-21 as well as in 2023-24, and then applying an escalation factor to these base level expenditures.

Based on the above issues, KPMG recommends the following:

- 1. A 15% reduction in 2020 base year electricity opex (from \$3.0 million in 2020 to \$2.6 million).
- 2. Application of revised escalation factors to reflect recent AER and AEMC reports, including:
 - i) A 7.5% reduction in fixed charges over 2020-21 (KPMG reasons that the AER expects small business customers will see at least a 15% nominal reduction in bills over the next five years (3.5% in real terms). KPMG considers it is reasonable that 50% of this expected savings is passed through to GAWB.
 - ii) An annual 4% decrease in nominal variable charges over the first two years of the next period. KPMG considers the assumption conservative given expected falls in network and wholesale prices (AEMO reports wholesaling and distribution costs to fall 14% in 2020-21 and then 1% in 2021-22).
- 3. No allowance for the 2023-24 step change in electricity costs (as there is no information provided to support this).

Following a review of the previous approach and consideration of KPMG’s comments, we recommend updating the electricity cost escalators to include information provided in AEMC’s (2019) updated report which includes the AER’s draft determination for Ergon Energy.⁴ This directly addresses KPMG’s comments concerning the calculation of the electricity escalation factors (B), including the use of superseded input data from AEMC (B.a) and the incorporation of Ergon Energy’s expected reduction in network costs (B.b).

However, we note that the AEMC’s bill estimates for small businesses will overstate the impact of changes in network charges, and understate the impact of changes in wholesale costs, for an entity such as GAWB. To account for this, we propose adjusting the share of wholesale costs (in 2018-19) in AEMC’s current estimates to an assumed 55% (up from 36%) of the total and reducing the share of distribution costs from 42% to 17%. This is broadly in line with the split outlined by KPMG and likely better reflects the structure of GAWB’s electricity costs. It results in a slightly lower reduction in bills in 2020-21, and a slightly higher reduction in bills in 2021-22, than the AEMC small business estimate.

AEMC’s expected cost component price changes (between 2019-20 and 2021-22) are then used to index forward the adjusted 2018-19 cost components. After 2021-22, Brisbane CPI is retained as the cost escalation factor.

We note that in most regulatory decisions the final price determination, particularly in respect of opex and capex forecasts, is slightly less favourable to consumers than the draft price determination. At the same time, ongoing reductions in bond yields since the AER’s draft determination might further depress prices. We therefore consider it reasonable to reflect the AER draft decision in the

⁴ Australian Energy Market Commission, Residential electricity price trends 2019 (2019)
<<https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>>

future forecasts, as the AEMC has done, but agree with KPMG that if time permits the AER’s final determination should be reflected in GAWB’s escalation factors. We make no comment on adjusting the base year electricity opex (A above) or on the step changes in costs in 2020-21 and 2023-24 (C above) since those issues are not related to the cost escalation factors.

Incorporating the AEMC’s most recent estimates updates both the fixed (2.i. above) and variable (2.ii. above) charges, and has varied effects between 2018-19 and 2021-22. The effects of this are described in Table 1.5. and show that the cost escalator is on average lower including deescalated costs in the two years from the base period (2020-21 and 2021-22).

Table 1.5 Electricity cost escalation factors, previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|---|
| Previous | -8.28% | -0.36% | 1.38% | 2.46% | 2.26% | 2.16% | 1.57% |
| Updated | -5.69% | -11.02% | -2.95% | 2.24% | 2.38% | 2.26% | -1.56% |
| Difference (percentage points) | 2.59% | -10.66% | -4.33% | -0.21% | 0.12% | 0.10% | -3.13% |

Source: Deloitte Access Economics

1.7 Chemicals

Deloitte Access Economics previously provided a cost escalator for chemicals based on forecasts for the price of crude oil. KPMG is concerned that the cost escalator proposed by Deloitte Access Economics is high and queries the step increase in chemical costs in 2022-23 (pp.143-146). KPMG recommends escalating chemicals costs by CPI.

We recommend retaining our current approach. Our approach uses lagged forecasts of Tapis Crude prices which reflect variability that is characteristic of chemical prices (see Chart 1.1 below). Use of CPI as a cost escalator would not capture the year to year variation that (lagged) Tapis crude enables.

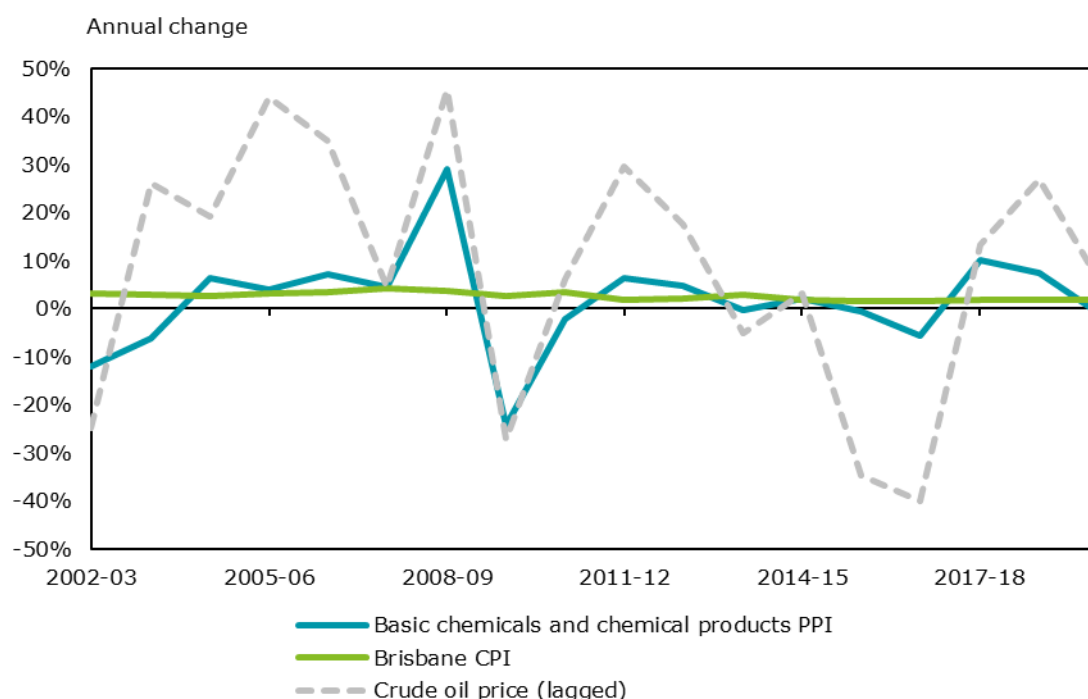
Tapis Crude is a key input for the chemical manufacturing industry and price variation in crude oil has tangible impacts on prices for chemicals. Historically, the correlation between these two series is positive and relatively strong (correlation coefficient above +0.5) (Table 1.6). In contrast correlation between CPI (Brisbane) and the Chemicals PPI has been relatively weak over the last 5 and 15-year periods (correlation coefficient less than +0.25), and negatively correlated over the last 10 years.

Table 1.6 Correlation coefficient between Basic Chemical PPI and selected series, to 2018-19

| | Last 5-years | Last 10-years | Last 15 years |
|--------------------------------------|---------------------|----------------------|----------------------|
| CPI: Brisbane | 0.22 | -0.44 | 0.21 |
| Tapis crude (lagged one year) | 0.90 | 0.68 | 0.72 |

Sources: ABS and Thomson Reuters

Chart 1.1 Chemicals PPI; comparison to crude oil prices and Brisbane CPI



Sources: ABS and Thomson Reuters

Updated cost escalators are provided below based on the December 2019 *Business Outlook* publication.

Table 1.7 Chemicals cost escalator, previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|---------|---------|---------|---------|---------|---------|----------------------------------|
| Previous | 5.09% | -3.23% | 6.14% | 2.44% | 1.87% | 1.74% | 1.75% |
| Updated | 6.99% | -7.13% | 6.97% | 4.31% | 2.58% | 2.29% | 1.69% |
| Difference (percentage points) | 1.90% | -3.91% | 0.84% | 1.87% | 0.71% | 0.55% | -0.06% |

Source: Deloitte Access Economics

1.8 Professional services (engineering)

KPMG considers Deloitte Access Economics’ proposed escalators for *Professional services (engineering)* to be appropriate (p. 160).

KPMG makes a number of recommendations for forecasting professional services opex that do not relate to the cost escalation factor and have not been considered by Deloitte Access Economics.

1.9 Capex

KPMG has a number of questions in relation to the forecast rate of capex escalation (pp. 108-109).

- KPMG notes that it is not clear why GAWB is using ABS data to split the labour and capital components of its capex, as opposed to using GAWB’s own recent historical data.

- KPMG notes that it is not clear why GAWB has used the construction data to determine the labour and capital split, but then not applied a forecast of the WPI for the construction industry.
- KPMG recommends using forecasts for CPI as the basis for escalating capex.

Deloitte Access Economics has used ABS data to split the labour and capital components of capex on the basis that the recent historical data and shares were unavailable from GAWB.

GAWB provided a description of the expected capital expenditure activities for the period. These projects will cover labour services that are broader than what is captured by construction WPI (including, for example, software enhancements and design). The construction industry also includes sub-industries such as “residential building construction” which is not relevant to the labour share of GAWB’s capex. Reflective of the range of services, Queensland WPI is considered an appropriate escalator for the labour costs associated with capex. However, the labour and capital shares for the construction industry were considered a more reasonable estimate than the all industry average given that the all industry average is affected by industries with very low labour income shares such as mining.

KPMG’s recommended approach of using only CPI would not account for the large labour component of capex. Deloitte Access Economics considers the original method appropriate.

Table 1.8 Capex, previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|---|
| Previous | 2.19% | 2.55% | 2.83% | 2.94% | 2.80% | 2.69% | 2.76% |
| Updated | 2.07% | 2.03% | 2.51% | 2.96% | 2.93% | 2.82% | 2.65% |
| Difference (percentage points) | -0.12% | -0.52% | -0.32% | 0.02% | 0.12% | 0.14% | -0.11% |

Source: Deloitte Access Economics

1.10 Rates (Gladstone Regional Council)

KPMG agrees with Deloitte Access Economics’ approach to calculating the escalation factor but suggests incorporating the 2018-19 council cost proportions that have been released since the earlier cost escalation factors were provided to GAWB (p. 149).

We recommend adopting the changes suggested by KPMG. Gladstone regional council cost proportions for 2018-19 (and 2017-18) are described below in Table 1.9. The marginal change in council cost proportions has a negligible impact on the council rates cost escalation factor (on average -0.002% a year between 2020-21 and 2024-25). The escalators have also been updated for updates to the outlook for Brisbane CPI and Queensland WPI (as discussed in Sections 1.3 and 1.4) which are used to project forward council costs for materials, employee costs, depreciation and amortisation and finance. Combined these changes reduce the cost escalation factor marginally between 2020-21 and 2024-25. The effect of updating the council cost proportion and updating CPI and WPI escalation factors is described below in Table 1.10.

Table 1.9 Gladstone regional council cost proportions, 2017-18 and 2018-19

| | 2017-18 | 2018-19 | Difference (percentage points) |
|-----------------------------|-------------|-------------|-----------------------------------|
| Materials | 41% | 43% | 2 |
| Employee costs | 31% | 31% | 0 |
| Depreciation & Amortisation | 24% | 23% | -1 |
| Finance costs | 4% | 3% | -1 |
| Total | 100% | 100% | |

Source: Gladstone regional council⁵

Note: Values may not sum due to rounding

Table 1.10 Cost escalation factors for council rates, previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|---------|---------|---------|---------|---------|---------|----------------------------------|
| Previous | 2.33% | 2.66% | 2.89% | 2.97% | 2.78% | 2.63% | 2.79% |
| Updated | 2.24% | 2.15% | 2.56% | 2.95% | 2.91% | 2.76% | 2.67% |
| Difference (percentage points) | -0.09% | -0.51% | -0.33% | -0.01% | 0.12% | 0.13% | -0.12% |

Source: Deloitte Access Economics

1.11 Insurance

KPMG recommends adopting an escalator based on Deloitte Access Economics' suggested approach.

Updated annual insurance escalators are reported below in Table 1.11 alongside the escalators previously provided as part of the original engagement. Changes to escalation factors here reflect the use of the updated Deloitte Access Economics' *Business Outlook* publication (released in December 2019) and corresponding changes to key series, including CPI.

Table 1.11 Cost escalation factors for insurance, previous and updated nominal cost escalators

| Estimate | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR (2019-20 - 2024-2025) |
|--------------------------------------|---------|---------|---------|---------|---------|---------|----------------------------------|
| Previous | 5.15% | 5.61% | 5.73% | 5.86% | 5.66% | 5.57% | 5.69% |
| Updated | 5.36% | 5.17% | 5.41% | 5.66% | 5.79% | 5.68% | 5.54% |
| Difference (percentage points) | 0.20% | -0.44% | -0.33% | -0.20% | 0.13% | 0.11% | -0.15% |

Source: Deloitte Access Economics

⁵ Gladstone Regional council, Annual Report 2018-19 (2019) <<https://www.gladstone.qld.gov.au/plans-reports>>

1.12 Summary of updated cost escalation factors

The table below presents the updated cost escalation factors.

Table 1.12 Nominal cost escalation factors

| | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | CAGR 2019-20 to 2024-25 | CAGR 2020-21 to 2024-25 |
|---|---------|---------|---------|---------|---------|---------|-------------------------------|-------------------------------|
| CPI (Brisbane, all groups) | 1.94% | 1.75% | 1.99% | 2.24% | 2.38% | 2.26% | 2.13% | 2.22% |
| Employee costs | 2.73% | 2.64% | 3.09% | 3.51% | 3.28% | 3.06% | 3.12% | 3.24% |
| Contract labour costs | 2.12% | 2.15% | 2.73% | 3.26% | 3.16% | 3.06% | 2.87% | 3.05% |
| Contractors (service delivery) | 2.12% | 2.15% | 2.73% | 3.26% | 3.16% | 3.06% | 2.87% | 3.05% |
| Electricity | -5.69% | -11.02% | -2.95% | 2.24% | 2.38% | 2.26% | -1.56% | 0.96% |
| Chemicals | 6.99% | -7.13% | 6.97% | 4.31% | 2.58% | 2.29% | 1.69% | 4.02% |
| Other materials and services | 2.08% | 2.05% | 2.55% | 3.01% | 2.97% | 2.86% | 2.69% | 2.85% |
| Professional services (engineering) | 2.12% | 2.15% | 2.73% | 3.26% | 3.16% | 3.06% | 2.87% | 3.05% |
| Capex | 2.07% | 2.03% | 2.51% | 2.96% | 2.93% | 2.82% | 2.65% | 2.80% |
| Rates | 2.24% | 2.15% | 2.56% | 2.95% | 2.91% | 2.76% | 2.67% | 2.80% |
| Insurance | 5.36% | 5.17% | 5.41% | 5.66% | 5.79% | 5.68% | 5.54% | 5.63% |
| Maintenance | 2.07% | 2.03% | 2.51% | 2.96% | 2.93% | 2.82% | 2.65% | 2.80% |

Source: Deloitte Access Economics

Limitation of our work

General use restriction

This report is prepared solely for the internal use of Gladstone Area Water Board. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of set out in our proposal and subject to the terms and conditions of the broader panel agreement. You should not refer to or use our name or the advice for any other purpose



Deloitte Access Economics is Australia's pre-eminent economics advisory practice and a member of Deloitte's global economics group. For more information, please visit our website: www.deloitte.com/au/deloitte-access-economics

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities. DTTL (also referred to as "Deloitte Global") and each of its member firms and their affiliated entities are legally separate and independent entities. DTTL does not provide services to clients. Please see www.deloitte.com/about to learn more.

Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax and related services. Our network of member firms in more than 150 countries and territories serves four out of five Fortune Global 500® companies. Learn how Deloitte's approximately 286,000 people make an impact that matters at www.deloitte.com.

Deloitte Asia Pacific

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities provide services in Australia, Brunei Darussalam, Cambodia, East Timor, Federated States of Micronesia, Guam, Indonesia, Japan, Laos, Malaysia, Mongolia, Myanmar, New Zealand, Palau, Papua New Guinea, Singapore, Thailand, The Marshall Islands, The Northern Mariana Islands, The People's Republic of China (incl. Hong Kong SAR and Macau SAR), The Philippines and Vietnam, in each of which operations are conducted by separate and independent legal entities.

Deloitte Australia

In Australia, the Deloitte Network member is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms, Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 8000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site at <https://www2.deloitte.com/au/en.html>.

Liability limited by a scheme approved under Professional Standards Legislation.
Member of Deloitte Asia Pacific Limited and the Deloitte Network.