Gladstone Area Water Board

Further Submission to the Queensland Competition Authority

Fitzroy River Contingency lnfrastructure

Response to Stakeholder Submissions

20 July 2007

Glossary	
AHD	Australian Height Datum – survey reference to a level of height to a standard base level
CPM	Callide Power Management Pty Ltd
CSC	Calliope Shire Council
CSE	CS Energy
DMP	GAWB's Drought Management Plan
DNRW	Department of Natural Resources and Water
GAWB	Gladstone Area Water Board
GEIDB	Gladstone Economic and Industry Development Board
GPN	Gladstone Pacific Nickel Ltd
QCA	Queensland Competition Authority
RTA	Rio Tinto Aluminium
SAMP	Strategic Asset Management Plan
SWP	Strategic Water Plan
WACC	Weighted Average Cost of Capital

EXECUTIVE SUMMARY

1.1 Purpose

The purpose of this further submission to the Queensland Competition Authority ('QCA'), is to respond to stakeholder submissions in relation to the Gladstone Area Water Board's ('GAWB') submission of 26 March 2007 ('the Original Submission'), in which GAWB sought approval from the QCA to recover the prudent preparatory expenditure associated with the investigation of a contingent water supply in its 2010 price review.

1.2 Material reviewed

Material reviewed in preparation of this submission, includes:

(a) stakeholder submissions from:

(i) Callide Power Management Pty Ltd;

(ii) Calliope Shire Council;

(iii) CS Energy;

(iv) Gladstone Economic and Industry Development Board;

(v) Gladstone Pacific Nickel Ltd; and

(vi) Rio Tinto Aluminium.

(b) QCA Final Report ***Gladstone Area Water Board: Investigation of Pricing Practices*** March 2005;

(c) QCA Draft for Comment ***General Pricing Principles for Infrastructure Investments made in Response to Extraordinary Circumstances*** March 2004;

(d) QCA Final Report ***Gladstone Area Water Board: Investigation of Pricing Practices*** September 2002;

(e) GAWB Drought Management Plan (as amended)';

(f) QCA additional information letter dated 8 May 2007; and

(g) GAWB simulation drought model for Awoonga Dam.

2. Nature of proposal put forward in this submission

In summary, GAWB notes the issues raised by Stakeholders, but believes that the proposal as set out in its Original Submission reflects an economically efficient means of achieving its need to respond to demand and supply side contingencies.

There continue to be two relevant drivers for GAWB in making its submission:

(a) drought response – providing customers with improved water security through developing a contingent supply strategy.

(b) supply response – ensuring GAWB can meet the growing demands of the region in an efficient and timely manner.

In order to do this, GAWB maintains that new sources must be available to the region within 24 months from trigger. The 24 month criterion was set to allow GAWB to respond to likely lead-time for new (industrial) demands and to be consistent with the timeframe necessary to access emergency supply of water in the case of a severe drought. The trigger itself is a matter for Part (b) of the Authority's terms of reference.

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[1] The contents of GAWB's Drought Management Plan have been amended by a resolution of GAWB's board on 3 July 2007 to use the average of the worst 3 year inflows as opposed to the worst 10 year inflows when forecasting future water storage. The amended Drought Management Plan has been submitted to the Department of Natural Resources and Water for registration in accordance with the requirements of the Water ***Act*** (2000). GAWB has not yet been advised of the registration of the revised Plan.

This timing requirement is supported by a number of stakeholders, in particular, GEIDB considers GAWB's proposal to be *"...essential to ensuring Gladstone's water supply is reliable for industrial development..."*[2], and GPN commends GAWB on *"...its proactive approach to the timely supply of water under uncertain demand and supply situations..."*.[3]

GAWB also notes that in addition to economic factors, the QCA is entitled to take into account the need to encourage socially desirable investment or innovation, and social welfare and equity considerations.[4] In that respect, GAWB notes the State Government confirmation (of 10 July) of GAWB as the designated proponent for the Rockhampton to Gladstone Pipeline, as part of its Statewide Water Policy.

3. REVIEW OF STAKEHOLDER SUBMISSIONS

3.1 Issues raised by 'stakeholders'

GAWB filed its submission with the QCA on 26 March 2007 following which stakeholders and interested parties were invited by the QCA to respond to GAWB's submission. GAWB has reviewed the stakeholder submissions, and now responds to a number of concerns which were raised.

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[2] Gladstone Economic and Industry Development Board submission to the QCA dated 6 June 2007 at p1
[3] Gladstone Pacific Nickel Ltd submission to the QCA dated 4 June 2007 at p1
[4] *Queensland Competition Authority Act,* 1997 s26(1)(i) and (ii)

3.2 Evaluation of supply options

Evaluation of options

CPM and CSE propose that GAWB's evaluation of supply options is flawed because consideration of water trading, retro-fitting of air cooling at power stations and the development of a desalination plant were not adequately evaluated.

CPM states that *"...GAWB's comparative evaluation of the Fitzroy River pipeline option, as a supposedly superior option to others, is flawed. Particular deficiencies relate to the treatment of scaleability and comparative supply reliability, in comparison to demand management options (through power station dry-cooling, for instance) and non-conventional supply options like desalination..."*[5]

CSE states that *"... CS Energy is concerned that GAWB does not appear to have appropriately considered demand side options..."*.[6] Such 'demand side options' proposed by CSE include water trading and retro-fitting of air cooling at power stations.

GAWB, in its Original Submission stated that it had, *"...re-evaluated the SWP supply options retaining the same evaluation weightings but with minor changes to the threshold criteria to reflect requirements of the contingent source strategy. The update has confirmed that a supply from the Fitzroy River remains the least cost option consistent with obtaining necessary supply characteristics, that is, supply is likely to be available (with reasonable certainty over costs) within 24 months. The second best option is construction of a desalination plant in the Gladstone region..."*.[7]

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[5] Callide Power Management submission to the QCA dated 13 June 2007 at p 2
[6] CS Energy submission to the QCA dated 15 June 2007 at p 2
[7] Gladstone Area Water Board 2007 QCA submission dated 26 March 2007 at p 8

CPM considers it *"... misleading to emphasise the hydrological risks of the Awoonga catchment, as justification for proceeding with a contingent supply option, without acknowledging that the same risks clearly must now or will in the future affect an adjacent surface water catchment..."*.[8]

However, GAWB and its customers currently rely on the 770,000ML capacity Awoonga Dam, which is owned by GAWB, as the sole source of water. GAWB does not consider that it is necessary to point out that adjacent water catchments may be subject to similar hydrological risks as the Awoonga catchment. Access to different catchments will clearly improve the overall hydrology risk, particularly to one of the largest catchments in Australia.[9]

Moreover, demand-side measures (such as funding or contributing to converting power stations to dry cooling) provide no diversification benefits that arise from sourcing additional water from a different catchment.

GAWB noted in its Original Submission that following the raising of Awoonga Dam to 40m AHD in order to provide more storage capacity for times of drought, in June 2002, the dam has not topped the 40m AHD mark. In March 2004, Awoonga Dam peaked at 36.94m AHD (587,540ML) or 75% of its full storage capacity, and since then, inflows into the dam have been worse than any three-year series recorded to date. In early July 2007, Awoonga Dam was storing approximately 37% capacity – some 290,000ML.

RTA state that it is *"...a strong supporter of GAWB's plan to develop a contingent water supply from the Fitzroy River..."*[10] and it *"...continues to support GAWB's efforts to*

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[8] CPM submission to the QCA at p. 7
[9] See Gladstone Area Water Board 2007 QCA submission dated 26 March 2007 at pp 90-91
[10] Rio Tinto Aluminium submission to the QCA dated 8 June 2007 at p1

develop the contingent source supply from the Fitzroy River including the need for preparatory expenditure..."[11].

GAWB remains of the view that the Fitzroy pipeline is the most cost effective option to ensure supply within 24 months.

Desalination plant

CPM states that GAWB's 2004 SWP assessment of desalination against the Fitzroy pipeline as being *"... less reliable than the Fitzroy Pipeline, on account of the former's stated "mechanical reliability" of **96%** versus a hydrological reliability of **99%** for the Fitzroy weir..."* is *"...nonsensical..."*.[12] However, GAWB notes that CPM had representation on the Steering Committee for the SWP which devised the ranking assessment methodology that was used in GAWB's submissions, and is the subject of CPM's recent criticism.

CPM's argument that a desalination plant "*...can be designed to be **sufficiently** reliable to deliver drought mitigating water supply..."* whereas *"...all **surface** water storages are exposed to climatic variability and therefore some level of hydrological risk..."* is correct. GAWB does not deny that a desalination plant could be designed to provide a drought mitigating supply, but notes that the cost of such a project includes both the construction of the plant and the high on-going maintenance and running costs.[13]

GAWB notes in its Original Submission that despite the lower ranking in the 2004 SWP of a desalination plant, it was considered prudent to re-assess the costs of the desalination option as a check against whether the decision to proceed with the Lower Fitzroy option

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[11] RTA submission to the QCA at p3
[12] CPM submission to the QCA at p 7
[13] GAWB 2007 submission at p94

should be revisited, as the desalination plant is the only other option (over which GAWB has control) which can be delivered to the required timeframe.[14]

The outcome of this review was *"...an estimated capital cost for a 30,000ML/annum desalination plant of between $314M to $361M (including 25% contingency) in $2006..."*. For the purposes of the Original Submission GAWB adopted a mid-point ($338M) of that range as being the estimate (the estimate for a 20,000ML plant in $2002 was $117M).[15] As indicated by the high 'risk to cost' rating in the evaluation of options, the estimate itself is based on key assumptions that could prove false and the estimate substantially too low. In comparison, total estimated capital cost of the Lower Fitzroy option including associated infrastructure is now $345M (originally estimated in 2004 to be $120-200M).

The reasons for this increase in cost of the desalination plant include:

(a) *an increase in capacity of the desalination plant to compare with the 30,000ML Fitzroy Option;*

(b) *a change in the assumed process requirements from thermal to reverse osmosis; and*

(c) *updates to construction cost estimates, benchmarked against new desalination projects.*[16]

GAWB's Original Submission noted that whilst the estimate for the desalination plant *"... is comparable to the updated capital cost for the Lower Fitzroy ($345M), desalination has far higher operating costs due to the energy costs associated with processing*

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[14] **GAWB 2007 submission at p86**
[15] **GAWB 2007 submission at p86**
[16] **GAWB 2007 submission at p 86**

seawater through the plant..."[17]. However, this option has not yet been disregarded as it is considered prudent to continue to gather further technical information on the desalination option as part of preparatory expenditure on the contingent source strategy. The scalability and potential for advantages in co-location with industry will be a particular focus of investigation. This will enable future decision making to be more fully informed on the technical and cost aspects of this option, as well as its potential to be delivered, with certainty, within a defined timeframe.[18]

This position is supported by GPN which states that *"...in our view the investigations of the Fitzroy pipeline and the alternative desalination plant as a source of supply should be continued as planned..."*[19]

Retro-fitting of air cooling at power stations

CSE and CPM both suggest in their respective reports that GAWB should direct funding towards *dry cooling* one or more of the generating units at their respective power stations.

CSE and CPM state that such a development would reduce water taken from Awoonga Dam by up to 5,000ML pa, per dry-cooling unit[20], representing a *"...reduction in water usage of between 60% and 80%..."*.[21] CPM states that the effect of such a strategy is two fold *"... it would prolong significantly the capacity of the existing Awoonga storage to supply existing (and forecast future) users, in an environment of depressed inflows..."* and *"... by reducing demand in the very near term, potentially as early as 2010/11, the dry-cooling option would defer in time the need for any 'normal' supply augmentation..."*.[22]

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[17] GAWB 2007 submission at p 87
[18] GAWB 2007 submission at p94
[19] GPN submission to the QCA at p 1
[20] CPM submission to the QCA at p 4; CSE submission to the QCA at p2
[21] CPM submission to the QCA at p4
[22] CPM submission to the QCA at pp. 4-5

CSE and CPM propose that such a reduction would have the effect of extending the existing supply volumes for some years and delay the need for augmentation, and ultimately the requirement to commence preparatory work on the Fitzroy River pipeline.[23]

However, GAWB submits that the maximum benefit of demand reduction occurs if demand reduction is deployed earlier, not in a drought scenario as is presently the case in GAWB's service area. Further, any benefit is only retained so long as demand does not increase to former levels. If deployed late, even significant expenditure on demand reduction may not defer further supply augmentation for drought.

In addition, a number of key matters were identified in the Original Submission in relation to retro-fitting air cooling at power stations which GAWB continue to consider important, these include:

(a) *GAWB does not control decisions associated with capital investment at these power stations;*

(b) *there is some uncertainty surrounding the longevity of such a benefit* [that is the total volume of water usage eliminated as a result of the retro-fit]. *These power stations will huve lives substantially less than the infrastructure associated with the Lower Fitzroy Option; and*

(c) *reducing demands from Awoonga Dam through these means does not provide improvements to overall system reliability (for Gladstone and CQ). Rather, customers would remain exposed to the drought risks associated with a single-storage system (ie no catchment diversification).*[24]

CSE and CPM have not addressed these concerns in their submissions, and as such they remain key to GAWB's considerations. Nevertheless, GAWB considers that this option

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[23] CPM submission to the QCA at pp.4-8
[24] GAWB 2007 submission at p 96

continues to have merit because of its relatively short lead-time and the current assessment of its cost. Accordingly, as was stated in the Original Submission *"...GAWB intends to continue to progress discussions with the owners of both power stations at appropriate intervals to assess whether a mutually beneficial proposal may exist, and if so, how it could be established with the high level of certainty required..."*.[25]

These arrangements might occur by means of trading or other options to reduce the reservation of water for the Power Station owners. The opportunity and mechanisms for trading have been in place for all GAWB customers for some time.

3.3 Economic justification for expenditure and flow-through costs

CSE states that it *"... has been generally supportive of efforts by the (GAWB) to enhance water system reliability in the Gladstone Area. However such efforts must be economically justified and it is CS Energy's view that the GAWB proposal does not provide that justification..."*.[26]

CPM states that *"... GAWB has failed to demonstrate the value of spending a significant sum of money now on preparatory work relating to the Fitzroy River pipeline, as compared to the insurance benefit that this provides and other potential ways in which the same (or higher) benefit might be acquired..."*[27].

GAWB suggests that the statements made by CSE and CPM need to be considered in light of the industrial development of the region and the demand on GAWB to supply

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[25] GAWB 2007 submission at p 96
[26] CSE submission to the QCA at p 1
[27] CPM submission to the QCA at p2

water, combined with the overall economic benefit the pipeline will have on the community[28] once complete.

GEIDB states that it considers *"...GAWBs proposal to be essential to ensuring Gladstone's water supply is reliable for industrial development..."*.[29] Furthermore, GEIDB states that *"... a supply augmentation of the order of 30,000ML per annum by 2011 appears to be required to ensure that a water supply deficit does not occur and that a reasonable reserve margin is maintained..."*.

In meeting these demands for water in the Gladstone region, GAWB in its Original Submission identified two key areas of uncertainty, including:

(a) *Demand – increments in demand are largely dependant on industrial development in the Gladstone region, which requires a commitment from GAWB that necessary volumes can be met, as and when required.*

(b) *Supplies – flows into Awoonga Dam since 2000 illustrate the difficulty in predicating future water management decisions on historic data.*[30]

In response to the increase in cost estimates, GEIDB noted in its submission that the infrastructure investment in Queensland which coincides with, and is partly driven by, the resources boom has been driving major capital works. GEIDB state that this situation *"...combined with a comparable set of activities in Western Australia...has caused a substantial tightening in the supply chains that major infrastructure programs rely on...*

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[28] Such benefits include the increase of water storage capacity on the lower Fitzroy River as well as the potential for the pipeline to operate reversibly, which will also improve the reliability of water supply for the Rockhampton Region.
[29] GEIDB submission to the QCA at p1
[30] GAWB 2007 submission at p 14

[leading] *to cost escalations and has elevated the timing risk of major infrastructure development...".*[31]

Furthermore, GEIDB state that *"...there appears to be no respite in the pressure on the supply chains...indeed there are strong signs that the pressure may intensify in coming years as projects outside Queensland may compete aggressively for resources and succeed in diminishing the state's access to skills and equipment...".*[32]

Despite the criticisms *"...CPM supports well-founded spending on project planning and other preparatory works, where this spending offers a clear benefit to users...".*[33] *CPM* **also states that** *"...GAWB needs to be encouraged to deliver services, now and into the future, which customers value, that are delivered in an efficient way, and which represent the most efficient combination of new and existing, conventional and innovative, supply augmentation and demand management options available...".*[34]

Finally, GEIDB note that *"...if GAWB delays, there is a very real risk that competition from other projects in Australia and overseas may cause cost and time blowouts that could culminate in threats to the security of water supply to Gladstone..."*[35].

GAWB notes that the increased estimate for the Fitzroy pipeline option is due largely to an increased understanding of the required parameters after more detailed investigation, more so than cost escalation, and that each of the other options open to it hold the same risks given their lesser investigation.

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[31] **GEIDB submission to the QCA at p 3**
[32] **GEIDB submission to the QCA at p 3**
[33] **CPM submission to the QCA at p3**
[34] **CPM submission to the QCA at p 1**
[35] **GEIDB submission to the QCA at p 3**

3.4 Timing of preparatory investigations and accelerated construction

CPM argue that the demand forecast for water in the region has decreased since GAWB's 2000 forecasts which provided GAWB with its justification to raise the Awoonga Dam. CPM states that

> "*...In 2000, and prior to the most recent augmentation of Awoonga Dam, GAWB's 'medium series' demand forecast was that demand would reach 61,205ML in 2004-05, increasing to 11 2,515ML in 2021...this demand projection was still deemed sufficient to justify the raising of Awoonga Dam and a near doubling of its yield and costs... Annual demand now is just less than 56,000ML, and the QCA's most recent forecasts are that demand will increase to just more than 70,000ML by 2024/45 – some 37% below the level predicted by GAWB for three years earlier ...*"[36]

Demand growth is however, largely contingent on whether industrial projects proceed. GAWB is unable to influence whether such projects in fact proceed. As a result, GAWB's 'contingent supply strategy' seeks to respond to an environment of uncertain demand growth. As opposed to committing GAWB to substantial expenditure based upon uncertain demand forecasts, this strategy seeks to preserve GAWB's ability to respond to demand growth which is considered to be reasonably possible. Further, the availability of a contingent strategy means that GAWB is in a position to meet the needs of new customers.

With reference to major industrial projects that are "genuinely under study"[37] GEIDB states in its submission that *"...the cumulative potential water demand of these projects is in the vicinity of 27,000 ML / annum...when probability of development is taken into account however, this figure is reduced to approximately 20,000ML / annum of future*

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[36] **CPM** submission to the **QCA** at p **8**
[37] **GEIDB** submission to the **QCA** at p2

demand having medium to high potential to occur by the end of 2011... given that GAWB presently has 14,000ML / annum of unallocated water under sustained yield conditions, it is possible that future industrial demand may result in a water supply deficit of 6,000ML / annum by 2011 if a significant supply augmentation is not undertaken...".[38]

GAWB, in its Original Submission to the QCA, noted that the *"...Awoonga catchment exhibits very large inter-year inflow variation. As such, given GAWB demand is largely industrial in nature, being characterised by large increments required within relatively short lead times, the spare capacity that GAWB should hold to cope with inflow fluctuations, and possible demand growth, is very large (in proportion to current demand levels) compared to other water businesses..."*[39] and, for that reason, it is necessary for GAWB to undertake investigation of contingency supply systems prior to reaching augmentation levels.

GPN states that *"...GAWB's approach to fully accepting the responsibility for water supply to the area, its proactive approach to the timely supply of water under uncertain demand and supply situations, and its plans to secure long term water supplies is commendable...".*[40]

Long lead time

RTA raised concerns in its submission that the Fitzroy option represented an early purchase of long lead time items which is an unnecessary expense for the immediate future.[41]

GAWB, in its Original Submission, noted that the long lead time that is necessary to access new water sources is incompatible with the relatively short period of time required

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[38] **Ibid**
[39] **GAWB 2007 submission at p 10**
[40] **GPN submission to the QCA at p1**
[41] **RTA submission to QCA**

to respond to stepped changes in inflow or demand without the likelihood of supply failure to customers. Accordingly, the objective of the 'contingent source' strategy proposed by GAWB is to shorten the lead time of the most suitable new water source so that it can most efficiently respond to these changes to address the potential for supply failure.[42]

GEIDB states that *"infrastructure supply augmentations need to be under study concurrently with the study of major industrial projects..."* GEIDB also states that it *"...considers the actions of GAWB to be a prudent recognition of contemporary major industrial project lead times and the need for concomitant infrastructure to be under study on a concurrent rather than sequential basis..."*.[43]

GAWB, in its Original Submission, identified a number of benefits of the contingent source strategy which include:

(a) *delaying construction of the next supply source until as late as possible;*

(b) *reducing the risk of supply failure inevitably associated with a single catchment and diversify key infrastructure risk (e.g. pump stations); and*

(c) *reducing the economic loss associated with periodic imposition of drought-related restrictions.*[44]

GAWB considers that the economic benefit of delayed construction is significant. In addition, delay of construction until the latest safe time, ensures that triggers and construction are based on the best possible information (used, for example, to evaluate construction against alternatives and to select the capacity of supply constructed).[45] In

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[42] GAWB 2007 submission at p 6
[43] GEIDB submission to the QCA at p 2
[44] GAWB 2007 submission at p 9
[45] GAWB 2007 submission at p 9

that context, the purchase of some long lead time items will permit the timely and efficient delivery of the remaining elements of the strategy.

GEIDB supports GAWB's position and comments that *"...it considers that the timely availability of reliable infrastructure capacity is a critically important factor ... for attracting world scale industrial projects to the region, ... which tend to involve resource/minerals processing ... and which have a high demand on a regular and sustained water supply..."*.[46]

The present application of the 'contingent supply strategy' by GAWB results in it undertaking works totalling an **estimated** $23.8 million. These works will be undertaken so that GAWB may have certainty that within 24 months it can access a supply of high reliability water from the Lower Fitzroy that has been reserved for it by Government.

Such a timely response is also supported by GPN, who applaud GAWB for *"...fully accepting the responsibility for water supply to the area, its proactive approach to the timely supply of water under uncertain demand and supply situations, and its plans to secure long t e n water supplies ..."*.[47] GPN suggest that other utility and infrastructure providers in Queensland should take note, as they are of the view that *"... the community is currently suffering because of an apparent absence of planned infrastructure development..."*.[48]

Some criticism is made of the cost of some of the planned items of GAWB's early work program.[49] In its Original Submission, GAWB did not seek approval for the estimated expenditure that it referenced; rather it sought endorsement of the future roll-in of

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[46] GEIDB submission at **p1**
[47] GPN submission to the QCA at **p1**
[48] GPN submission to the QCA at **p1**
[49] CSE submissions to QCA at **p3** and RTA submission at **p3**

prudent preparatory expenditure necessary to achieve a 24 month construction time target (with such expenditure to exclude any unnecessary or over-designed works).[50]

However GAWB notes and agrees with the suggestion made by RTA that a 'detailed execution schedule should be developed as a priority'.[51] This should provide Customers with further clarity around the issue of timing and expenditure. Accordingly GAWB will include a detailed execution schedule within its scope of work.

GAWB had also considered CPM's suggestion that there be an 'option scheme' for any drought-related supply enhancement.[52] In GAWB's view such a scheme can be considered, if at all, at the time of augmentation, but it is not appropriate for the preparatory expenditure. Otherwise each customer would effectively be required to make an election now when the actual trigger for augmentation is not known.

3.5 Cost allocation for contingent supply

CSC state that the cost of the pipeline *"...will have a significant impact on water prices particularly if the pipeline is built for drought mitigation reasons before it is needed to meet long term demand growth..."*.[53]

RTA notes that *"water supply is a genuine common user infrastructure...and proposed augmentation should attract State Government support on the basis that this is key common user infrastructure for the Gladstone area and its industries...such support should be designed to mitigate the cost impact of drought proofing GAWBs existing customers..."*[54].

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[50] Original Submission to the QCA at p110
[51] RTA submission at p4
[52] CPM submission, p9
[53] Calliope Shire Council submission to the QCA dated 29 May 2007 at p 1
[54] RTA submission to the QCA at pp 1-2

GPN state that it supports the *"...the pricing philosophy and approach being taken by GAWB..."* because GPN considers that *"...GAWB need confidence that their investigative efforts will be paid for by the end users at a later time..."*[55].

The QCA in its March 2005 report, considered the prospect of cost allocation of augmentation to account for new customers and unidentified new customers. In so doing the QCA noted that GAWB, being a bulk water supplier to large industrial customers, must manage potentially large demand increments. QCA noted that GAWB can respond to such demand growth in many ways, including:

(a) expanding capacity in anticipation of demand growth;

(b) adopting a just-in time approach to capacity augmentation; or

(c) adopting a lagged growth strategy with augmentation delayed until the costs of excess capacity are minimised.[56]

Accordingly, GAWB has elected to adopt a just-in-time approach to capacity augmentation, and reiterates its comments from its Original Submission where it stated that *"...the cost of preparatory work for the contingent source strategy will be treated as work in progress (WZP)and rolled-forward (using a cost of capital of 7.73%) until 1 July 2010. The economic costs will then be included in prices from 1 July 2010..."*.[57]

GAWB stated in its Original Submission that *"...the effect of these changes on prices ... will depend on the demand assumptions used to calculate the 2010/11 to 2015/16 prices ... GAWB's current best estimate, based on demand forecasts used to develop the 2005/06 prices, is an increase in the water reservation and storage price of $51/ML*

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[55] GPN submission to the QCA at p1
[56] QCA Final Report March 2005 – Gladstone Area Water Board: Investigation of Pricing Practices at p60
[57] GAWB 2007 submission at p 103

(2010/11 dollars) or 16%. When delivery charges are considered the average price increase to customers in 2010/11 will be approximately 9.1 %...".[58]

Since the Original Submission was drafted, GAWB has further developed its modelling to better estimate the outcomes of the 2010 price review.[59] As a consequence, the same assumptions that GAWB used to estimate a price increase of **$51/ML** are now expected to give a lower increase of **$35/ML** (2010111 dollars).[60]

GAWB reiterates that GAWB does not seek approval for specific levels of estimated expenditure; rather it seeks endorsement of the future roll-in of **prudent preparatory expenditure** necessary to achieve a 24 month construction time target (with such expenditure reviewed at the 2010 price review so as to exclude any unnecessary or over-designed works).[61] The actual price outcome for customers will be based on the reviewed prudent preparatory expenditure as well as all the other normal price review inputs (forecast capital and operating programmes, forecast demand, estimated WACC, etc.)

GEIDB states that it *"...strongly supports the proposed Fitzroy River Contingency Infrastructure proposal... when considered in the context of the construction timeframes of industrial projects and the tightening of construction supply chains, GAWB's approach is a prudent effort to guarantee that Gladstone's water supply remains reliable... it is an approach that will confirm that capacity will be available when needed... timely availability of capacity is a highly valuable attribute for investment attraction..."*[62].

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[58] GAWB 2007 submission at p 103
[59] In general terms these developments include recasting the model over a 20 year planning period, whereas the prior estimate was based upon a roll forward the outcomes of the 2005 price review. In more specific terms, these developments have included changes to tax allocation.
[60] GAWB's estimate assumes that project management, plans, environmental impact study, and approvals will have a 7 year life from 2010. This is considered a properly conservative approach.
[61] Original Submission to the QCA at p110
[62] GEIDB submission to the QCA at p 3

Finally, GPN states that it *"… supports* **GAWB** *in its requirement …that these costs to be recoverable from all its customers through prices charged from 1 July 2010… that the costs incurred in undertaking preliminary investigations into the feasibility and cost of a desalination plant be handled in the same way…".*[63]

GAWB again requests that QCA endorses the following principles for the 2010 price review:

(a) ***that the contingent supply strategy is appropriate and prudent;***

(b) ***that preparatory expenditure is prudent;***

(C) ***that certain specific types of costs and expenditure……. should be included in GAWB's asset base used to calculate tariffs from 1 July*** *2010;* ***and***

(d) *that preparatory expenditure will not subsequently be optimised out of the asset base without compensation to* **GAWB** *(always allowing regulators' normal caveat that they haven't been deliberately misled)…".*[64]

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[63] **GPN submission to the QCA at p1**
[64] **GAWB 2007 submission at p103**