

29 July 2005

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Mr Greg Watkinson
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Economic Regulation Authority
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Perth WA 6000

Dear Greg

**Re: Inquiry into the Cost of Supplying Bulk Potable Water to Kalgoorlie-Boulder
– Public Submission of UUA Responses to key sections of the Treasurer's
Reference**

We attach the above-captioned paper of our responses to the five sections of the Reference for the Inquiry.

The paper presents our conclusions in regard to the Reference. These are based upon extensive analysis by ACIL Tasman both prior to, and after, the publication of the ERA draft report.

The reasoning for the conclusions is based upon the framework proposed by the ERA draft report.

The conclusions of the paper are:

- The current cost of bulk water delivered to Kalgoorlie-Boulder is around \$5/kL
- The cost of UUA water delivered to Kalgoorlie-Boulder will be less than this, in a range between the avoidable cost and the current cost
- There will therefore be a cost-saving to the Water Corporation
- The impact upon Government finances will be positive
- The overall costs and benefits of the project will be positive

Yours sincerely,



Phil Endley
Project Manager - Goldfields Water Supply Project
United Utilities Australia

ERA Inquiry into the Cost of Supplying Bulk Potable Water to Kalgoorlie-Boulder – UUA responses to the Treasurer’s Reference

Summary of UUA’s responses to the Reference:

References	UUA Response
1	The CURRENT COST of bulk water delivered to Kalgoorlie-Boulder by the Water Corporation is around \$5/kL. The avoidable cost is more than \$3/kL. UUA has insufficient information to identify the CSO itself, but notes that the ERA draft report indicates a figure of \$33 million per annum, including Esperance.
2	Current indications are that UUA COSTS will be commercially-acceptable. Evidence of this has been presented to the Economic Regulation Authority. The commercial price should be within the range of avoidable cost to current cost, i.e. the range \$3-\$5/kL, incorporating a valuation of risk transfer benefits.
3	The COST SAVING to the Water Corporation will be an amalgam of avoidable costs, risk transfer and other priced elements. The avoidable cost is more than \$3/kL. UUA believes that the price for bulk water will lie in the range between avoidable cost and current cost, taking into account issues such as risk transfer.
4	The IMPACT UPON STATE FINANCES will be positive – the actual amount is open to debate until the Project moves toward bankability and contract close. The Project will only proceed when economic demand for water is proved, and this will – in itself – provide a positive balance to Government finances through mine royalty payments.
5	OVERALL COSTS AND BENEFITS ARE AT LEAST \$120 MILLION: The present value of implied new mining production of around \$3b will have a net value to the State Government around \$400 million, without taking into account the positive impact of new employment and other investment, and without considering industries such as tourism, agriculture and aquaculture.

1. Current cost

The Terms of Reference requested: the current cost to the Water Corporation of providing a bulk potable water supply to Kalgoorlie-Boulder and surrounding regions. This should clearly identify the cost to the State Government through its community service obligation (CSO) payments to the Water Corporation.

Response: The current cost of bulk water delivered to Kalgoorlie-Boulder by the Water Corporation is around \$5/kL. The avoidable cost is more than \$3/kL. UUA has insufficient information to identify the CSO, but notes that the ERA draft report indicates a figure of \$33 million per annum, including Esperance.

Reasons: The wide range of plausible estimates that can be generated, dependent on the detail of the definition used, was demonstrated in the earlier work done by ACIL Consulting (with GHD and Stanton Partners) for the draft water supply strategy. Perhaps the most relevant measure of true cost developed in that study was the estimate of costs of delivering water to Kalgoorlie Reservoir on the basis of an 'incremental costing' reservoir, in which costs are progressively shared along the pipeline, based on volumes used in each zone – with the residual costs and volumes being passed through to the next zone. This approach yielded a 'true cost' estimate in 2002 of \$4.91/kL which, with cost indexation, would presumably be somewhat higher now.

UUA does not have access to the full CSO calculations attributable to G&AWS used by Water Corporation, but understands the costings to be well over \$4/kL. Water Corporation has acknowledged an ongoing incremental cost of expanding system capacity (almost irrespective of volume) of the order of \$4/kL. Back calculation from the ERA Draft Report data implies a levelised cost (@6%) of growth water of \$4.52/kL. These are strongly supportive of a replacement cost substantially above this. Importantly, these are Water Corporation costs, and do not include any adjustment for the evidence of downwards bias in Water Corporation project costings, as noted in the recent ERA report on water and wastewater pricing.

We calculate from the ERA draft report data an average levelised avoidable cost for G&AWS expansion of \$2.12/kL, but this is a blend of very cheap maintenance of existing supplies and high cost of growth. The result is a levelised cost similar to that of UUA for supplying a much larger market.

The above ACIL Consulting *et al* study also developed an estimate of the avoidable cost for continuing to supply the Kalgoorlie region. The assessment yielded a then value of \$2.72/kL, based on a source cost of \$0.80/kL and a

discount rate of only 4.3%. Using the data in the draft report, we calculate a weighted average source cost of \$0.83/kL; we do not endorse this and have set down reasons why we think it likely to be low, including the recent revaluation upwards of the IWSS costs that underpin the source cost calculations. However, using this source cost estimate, indexing for CPI change, and adjusting to a 6% discount rate suggests an avoidable cost now of the order of \$3.12/kL. To this UUA would propose adding a premium for, amongst other factors, the value of substantial delivery risk transfer to the private sector from Government.

Two different definitions of avoided cost are involved here and we are not suggesting that they need to be fully reconciled. However, a large part of the difference lies in what has been assumed about costs that would need to be incurred by Water Corporation.

UUA's proposal shows very clearly that an alternative to the G&AWS could be created at a substantially lower cost using UUA's proposed desalination strategy – in this sense, the assets are now effectively 'stranded' and should be valued in terms of the costs of now supplying the water demand. The only reason the G&AWS warrant consideration as a competitor to the UUA proposal is because of the sunk costs involved.

2. UUA cost

The Terms of Reference requested: The cost that United Utilities Australia, through its proposed desalinated seawater pipeline from Esperance to Kalgoorlie-Boulder, could provide bulk potable water to Kalgoorlie-Boulder and surrounding regions, over the next 25 years.

Response: current indications are that UUA can provide bulk water at commercially-acceptable prices subject to satisfactory negotiation. Evidence of this was presented to the Economic Regulation Authority. The commercial price should be within the range of avoidable cost to current cost, i.e. the range \$3-\$5/kL.

Reasons: UUA has supplied to the inquiry detailed models and cost estimates under a range of demand scenarios. Actual costs, and the prices needed to deliver a commercially attractive proposition, will depend on the outcome of the proving up of the project and the further market assessment processes that would take place *if* in principle support can be obtained from the Government. These models point to an economic cost substantially under \$3/kL. As such, UUA will be well-placed satisfy significant additional demand on commercial terms, while meeting current commitments covered by the CSO.

Actual pricing of bulk water, consistent with commercial imperatives and the way in which risks are shared between UUA, customers and the Government would need to be addressed in the context of commercial negotiations.

3. Water Corporation cost savings

The Terms of Reference requested: the cost-saving to the Water Corporation for the next 25 years if United Utilities Australia did provide Kalgoorlie-Boulder and the surrounding regions with bulk potable water through its proposed desalinated seawater pipeline.

Response: The current cost of bulk water delivered to Kalgoorlie-Boulder by the Water Corporation is around \$5/kL. The avoidable cost is more than \$3/kL. UUA believes that the price for bulk water will lie in the range between avoidable cost and current cost, taking into account issues such as risk transfer from Government and its agencies.

Reasons: UUA is proposing a reduction in the cost of meeting not just existing customer demand, but new customer demand also, currently constrained by supplies from Perth. UUA will be happy to discuss with the Government the balance between pricing of water replacing existing Water Corporation supply, and pricing water to new customers and regional growth opportunities. However, we stress that any of the savings offered by the UUA strategy that are passed back to Water Corporation in lower prices for the CSO-covered proportion of demand must translate into higher prices attached to the remainder of the water. There is a significant trade-off involved here, and we believe that any higher prices that result would be *artificially high, involving economic distortion* in the most price-sensitive part of the market.

We argue elsewhere that the present arrangements entail a very significant and artificial cost penalty for regional mining – in the form of an artificially elevated cost of potable supply – and believe that careful consideration should be given by the Government to using the UUA proposal to relax, rather than to perpetuate, this cost penalty.

Perpetuation of such a distortion could be expected to result in the sacrifice of significant potential benefits to WA, in the form of regional growth and industry performance; application of a discriminatory penalty on a major export activity (gold and nickel) would fly in the face of established principles for sound industry policy.

Against this background, one of the major advantages, in terms of both economic efficiency and regional growth, offered by the UUA proposal is the chance to lower dramatically the cost of potable supply to mining activity – to a level

reflective of true costs – while retaining the benefits of the CSO for residential and commercial users.

4. Impact on State Government finances

The terms of reference requested: the impact of each option (points 2 and 3) on the State Government's finances, including borrowings and capital expenditure, tax equivalent and dividend revenue and CSO payments.

Response: the impact will be positive – the actual amount is open to debate until the Project moves toward bankability and contract close. The Project will only proceed when economic demand for water is proved, and this will – in itself – provide a positive balance to Government finances through royalty payments. The net value of the project to Government is in the region of \$400 million.

Reasons: The impact on Government finances is essentially an issue of transfer payments. Given competitive neutrality requirements under the NCP, it should not, of itself, influence the decision on whether the UUA project is worthwhile. That decision should reflect the relative cost effectiveness of the UUA and WC proposals for supply.

The main impact of state finances operates through the effect on Government debt of Water Corporation's future expenditure and revenues, tax receipts and CSO payments.

If Water Corporation were to meet the additional demand for water in the goldfields by up-grading G&AWS, this would imply a substantial increase in Water Corporation and hence Government debt – which would probably not be possible to achieve without damaging the Government's current credit rating. By comparison, UUA believes the project will have a favourable impact on State finances, by avoiding debt build-up.

State finances are affected also by tax (including GST) and royalty payments. Under the UUA project, a portion of tax receipts would go to the Federal rather than the State Government. However the State Government would continue to receive revenues, particularly GST, on the distribution and retail supply functions performed by Water Corporation. We are not convinced that royalty leakage need be anywhere near as serious as has been suggested in the draft report. Any attempts to move away from an otherwise attractive investment strategy on these grounds would, we believe, represent a disturbing and ultimately counterproductive policy trend.

The implication of the UUA project for CSO payments is not clear-cut, and is complicated by the fact that the historical level of transfer payments are largely based on asset configurations that would never be replicated. We note that CSO payments would continue to be paid to Water Corporation, as the retail supplier, so that the issue remains one of transfer payments between different arms of government. The question of whether the CSO payment would increase or decrease is difficult to assess given the lack of information surrounding current CSO payments, and given the flexibility that the UUA proposal provides the Government to also address significant and costly distortion in current arrangements for pricing water to users outside the CSO coverage.

5. Overall costs and benefits

The Terms of Reference requested: the overall costs and benefits of each option, including the impact on the end consumer and the potential to enhance regional economic development in Kalgoorlie-Boulder and the State in general.

Response: the project will have a capital value of over \$400 million, most spent in WA. The present value of implied new mining production of around \$3b will have a net value to the State Government around \$400 million, without taking into account the positive impact of new employment and other investment, and without considering industries such as tourism, agriculture and aquaculture. In the ERA economic framework this generates a surplus of \$40 million for the project.

Reasons: UUA has now applied its cost models, as provided to ERA in May, to the revised demand schedule, incorporating Water Corporation growth estimates, as used in the draft report. For reasons documented elsewhere, the draft report's conclusions were based on a hybrid involving UUA and Water Corporation demand estimates that were mutually incompatible and that led to a project very different from that proposed by UUA. Based on the use of this now consistent demand series, and the methodology used by ERA, we conclude that Figure A (the benefit/cost summary) in the draft report needs revision.

Use of a hybrid demand series in the ERA draft report has resulted in avoidable costs being underestimated by \$141m and UUA costs being underestimated by almost \$44m. The combination of these adjustments alone is enough to convert the inferred deficit of \$56m in the cost-benefit analysis into a surplus of about \$40m. We have documented elsewhere a range of other economic costs and

benefits that we believe strongly support the view that the surplus is very much more than this figure.

Important in here is that way that the UUA proposal can provide a hedge for WA and the WA Government against the risks of delivery cost increases. Also the UUA proposal can bring greater competition and testing of new ideas into the WA water markets.

UUA has further developed estimates of the impacts on the region and the state flowing from the additional activity implicit in these figures. These are distinct from the central cost-benefit analysis, but are highly relevant to the Inquiry. We have restricted our attention to direct effects, with no quantification of multiplier effects, though we would expect flow-on effects to be favourable to the Kalgoorlie and Esperance regions.

The construction of the desalination plant and pipeline infrastructure will involve an initial capital investment of \$440 million. Around 65% of this will actually be spent in the region, in local communities. There will be a high level of operational expenditure of some \$26 million a year. Again, 90% of this expenditure will be in the local region.

The project will have strong positive effects for local communities, for whom poor quality water and inadequate water supplies have been a fact of life for too long. These impacts will be felt most strongly in the Esperance region.

Furthermore, UUA's market research that has underpinned its commercial interest in the project suggests that a substantial proportion of its market amongst industrial users will take the form of enabling new mining activity, rather than just substituting for groundwater. Analysis of the profile of these demands suggests a present value of the implied new production of up to \$3b – with implications for demand for regional and state services and for royalty streams. Of course this extra value will be partly offset by the corresponding input costs. However, the associated activity levels do have important consequences for regional development and for social impacts within the regions. These impacts will fall largely in the Kalgoorlie-Boulder region.

The new water supply will also provide the agricultural sector with a stand-by source of water for crop sprays, livestock and domestic use.