

29 July 2005

Mr Lyndon Rowe
Chairman
Economic Regulation Authority
197 St Georges Tce
Perth WA 6000

Dear Mr Rowe

**Re: Inquiry into the Cost of Supplying Bulk Potable Water to Kalgoorlie-Boulder
- Meeting between Water Corporation and UUA 22 July 2005**

I refer to the meeting between officers of the Water Corporation, United Utilities Australia (UUA), Arup Water and the Economic Regulation Authority (ERA) on Friday 22 July 2005.

The purpose of the meeting was for UUA to discover in some detail background information with which Water Corporation prepared the "notional cost" model presented in the ERA's draft report "Inquiry into the Cost of Supplying Bulk Potable Water to Kalgoorlie-Boulder" dated 30 June 2005. The "notional cost" model was used to estimate the net present value (NPV) of avoided costs if Water Corporation were to cease supplying Kalgoorlie-Boulder via the Goldfields and Agricultural Water Supply (GAWS) in favour of water being supplied to Kalgoorlie-Boulder through UUA's proposed Esperance Kalgoorlie Pipeline (EKP).

UUA had previously requested in writing (5 July 2005) a number of technical details for the GAWS in order to verify the "notional cost" (or otherwise) including:

- (1) pipeline long section
- (2) tanks
- (3) pumping stations
- (4) control valves
- (5) pipe internal diameter
- (6) pipe material
- (7) design pressure level (or design pressure rating)
- (8) current design maximum flow
- (9) hydraulic grade line

During the course of the meeting, details of the GAWS were tabled, showing the complexity of the system. Water Corporation officers advised they were constrained



from passing over information to UUA, but some pages were obtained which included physical details of the pipeline Zones 5 and 6. UUA advised we intended to use the information for Arup Water to determine what physical upgrades would be required to enable the larger flows (up to 77 ML/d) to be handled and to verify that the “notional cost” used in the economic comparisons was reasonable. In particular, UUA intended to review the presumption stated on p 22 of the Draft Report that “the GAWS system can be incrementally extended at no significant cost penalty”. It was noted the ERA invited further submissions on this issue.

The three pages of material handed over to UUA included partial response to (5), (6) and (7) for Zones 5 and 6 (Ghooli to Dedari and Dedari to Kalgoorlie). While this is considered a starting point for independent review of Water Corporation’s basis of “notional costs”, it is considered more material may be required. This may require further meetings between UUA and Water Corporation officers.

In addition, UUA is reviewing the difference in unit costs in increasing the flow to the limit of the existing conduit. The unit capital costs of boosting through an existing conduit would be lower than if the conduit were replaced or duplicated. However, there would be an energy penalty due to the higher pumping pressures. UUA has inspected some of the existing GAWS in Zone 6 which consists principally of original locking bar mild steel pipes, and notes the poor condition of the conduit. In one section of one kilometre length, more than 30 welded repair bands were counted. It would also be expected the internal cement lining would be in poor condition, leading to poor hydraulic efficiency.

It would appear the conduit would be unlikely to have much capacity to take increased velocities and pressure, leading to the need for significant capital expenditure (replacement and/or duplication) in the not too distant future. These types of engineering details and expenditures are not captured by Board or budgeting papers. Our analysis of this, combined with engineering analysis of other Water Corporation data, is incomplete and will be provided to ERA as soon as it becomes available.

UUA understands that the ERA’s cost benefit analysis relating to increases in capacity of the GAWS above 50 MLD is based upon a capital budgeting approach, whereby funding is allocated to continuous minor projects including pumping station upgrades and pipe refurbishment, duplication and/or replacement. The capital budget would not necessarily reflect the actual timing and size of future capital works, since this would necessitate the preparation of detailed technical engineering reports for capacity in excess of 50 MLD which have not been prepared by the Water Corporation.

The spreading out of the capital cost of these works, virtually on an annual basis, naturally gives a lower NPV compared to UUA’s proposal which of necessity entails significant “up front” capital expenditure. The staging of capital upgrading on a more or less continuous basis is unusual. We would normally expect capital projects to be grouped together for efficiency in contract documentation and administration and undertaken at reasonable periods, say every 5 years. The annual upgrading proposed in Water Corporation’s capital budgets, in the opinion of UUA, would lead to an artificially low NPV unless a premium has been included for the piecemeal nature of the work.



Comments elsewhere about systemic under-costing of capital projects should also be noted.

The ERA's cost benefit analysis adopts the incremental cost approach for increases in GAWS' capacity above 50 MLD and not the projected cash flow capital expenditure. This tends to distort the net present value of avoided costs of the Water Corporation's GAWS extension as detailed in the draft report. This is a major concern for UUA, since the ERA draft report makes reference a number of times to the Water Corporation's extension having a net present value benefit greater than UUA's proposal.

UUA considers an extended time will be required to complete this analysis. Further, UUA requests the assistance of ERA in ensuring the release of better quality information from the Water Corporation or to adopt the costings prepared by UUA in its submissions. We intend to complete analysis of the information currently available by 10th August 2005.

Yours sincerely,

A handwritten signature in blue ink that reads 'Phil Endley'.

Phil Endley
Project Manager – Goldfields Water Supply Project