# The 2016 Inquiry into the Efficient Costs and Tariffs of the Water Corporations

Response to the Draft Recommendation Report

watercorporation.com.au

Fresh Water Thinking

WATER CORPORATION

# Contents

**Overview** .......... 3

**Inquiry** .......... 3

**Appendix** .......... 4

Efficient Revenue 4
Asset Base 4
Depreciation 4
Capital Expenditure 5
Operating Expenditure 8
Rate of Return 9
Inflation 10
Tariff 10
Material Variations 11

**Conclusion** .......... 11

## Overview

The Water Corporation (Corporation) welcomes the opportunity to provide a response to the draft recommendation report on the inquiry into the efficient costs and tariffs of the Corporation (the Inquiry) by the Economic Regulation Authority (ERA) (the Draft Report).

The Corporation is committed to providing water services in line with the level of service set out in our Operating Licence. We are constantly challenging ourselves to meet the needs and expectations of our customers by ensuring we provide reliable, safe and affordable services,

In addition to supporting our customers' requirements, as a Government owned capital intensive utility we are conscious of our net effect on Government finances, from whom our funding is sourced. Each year we forecast our capital and operating expenditure for a 5 year period which aligns with our legislative requirements to provide a Strategic Development Plan (SDP), Statement of Corporate Intent (SCI) and the Strategic Asset Plan (SAP).

The terms of reference for this Inquiry required financial forecasts for the period 2018-19 to 2022-23, which is beyond the Government's traditional financial cycle. As a result the Corporation did not have a formal zero based budget for the final year for the Inquiry.

The ERA and its consultants have invoked a number of economic regulatory principles in assessing our efficient costs but we have noted throughout this Inquiry process that there is no formal regulatory framework or rules of engagement that apply to the Corporation's activities and this has meant that the Corporation has in good faith provided information that it has prepared for other purposes not specifically for a formal regulatory assessment.

## Inquiry

In order to provide a logical response to the ERA's Draft Report we would first like to set some background events that led up to the Inquiry.

In 2012, the third inquiry into efficient costs and tariffs of the Corporation was finalised and the Government of the day elected not to adopt the ERA's recommended reductions in revenue and tariffs over the next period. From that point forward Government has determined the prices for services offered by the Corporation without reference to a suitable economic regulatory model.

In 2015 the Treasurer did not issue terms of reference for the fourth inquiry into costs and tariffs as scheduled. In the absence of the ERA inquiry and an economic model the Corporation developed a new cost base model to assist in determining the operating subsidy. This model is known as the Corporation's required revenue model (RRM).

On 31 October 2016 the Treasurer issued terms of reference for the fourth inquiry. The Corporation had not received prior notice that an inquiry would be carried out in the 2016-17 year. The imminent State election meant that the State budgeting cycle would be delayed and created a high degree of uncertainty.

In the Draft Report published in August, the ERA have made a series of recommendations about our processes and financial forecasts, all of which are based on a 4 day onsite review and a series of information requests that followed conducted by the ERA's consultant Cardno Atkins (Cardno). A number of conclusions were made in error or are not valid because of a lack of information, limited time to understand our end to end processes and outcomes of the State budget process. We have addressed each of the key recommendations in the attached appendix.

We look forward to working through these with the ERA between the draft and the final report.

# Appendix

## Efficient Revenue

The level of efficient revenue is a function of the return on and of assets, future capital plus operating expenditure that has been deemed prudent, otherwise known as the building block methodology. The Corporation accepts the building block methodology is a prudent way to determine the level of efficient revenue.

The ERA has recommended reductions in a number of the components that make up the efficient revenue calculation and as a result has recommended an overall reduction in the Corporation's revenue in the inquiry period. The Corporation rejects the ERA's revenue recommendation and in doing so submits that the ERA's level of efficient revenue is not adequate to provide services at an acceptable level of risk nor an appropriate return to Government. Further detail of this increased risk is described below.

The Corporation also rejects the ERA's recommendations on the efficient level of operating subsidy by virtue of the fact that the total revenue will have an impact on the amount of operating subsidy needed. The Corporation is committed to working with the ERA to understand how any changes to the efficient level of revenue will affect the operating subsidy.

To the extent there is any change to the efficient level of revenue the Corporation submits that the adoption of a phasing in approach is preferable to a once off change. This ensures neither the Government nor the Corporation's customers are subjected to any price shock.

## Asset Base

The ERA has rolled forward its 2005 regulatory asset base which was determined through adopting a deprival value approach and arrived at an opening asset base of $17,157.3 million (based on real $ 30 June 2016). The Corporation's model which was developed for the primary purpose of calculating the operating subsidy is based on a depreciated replacement cost methodology.

The ERA has adopted different approaches for indexing and rolling forward the asset base, the treatment of capital contributions and included land holdings. The overall impact of these approaches results in a higher opening asset base.

Despite the differences in approaches, the Corporation accepts the ERA's recommended opening asset base and we look forward to developing the model further to accommodate the determination of tariffs and operating subsidy.

## Depreciation

The ERA's model is expressed in real terms whereas the Corporation's model is in nominal terms. The ERA is of the view that we are depreciating our asset base too quickly and over recovering within the pricing period because inflation is counted twice. Firstly there is an allowance for inflation in the nominal rate of return applied in the nominal modelling framework and secondly, there is an allowance for inflation in the indexation of the asset base. The ERA is of the view that this violates the regulatory proposition that 'Net present value = 0' condition.

This methodology is applied by a number of Australian regulators and has been tested by the Australian Competition Tribunal as an acceptable approach. In simple terms the methodology requires the Corporation to remove inflation from its depreciation calculation resulting in a reduction in the total depreciation over the period.

The Corporation is prepared to accept the ERA's approach, and will work with the ERA to understand how this can be translated into the Corporation's revenue model.

## Capital Expenditure

The Corporation does not accept the reductions in the level of capital expenditure recommended by the ERA. The Corporation is of the view that the combination of the ERA's acceptance of our historical capital expenditure as efficient but then substantial reductions in base cost in the future and one off efficiency measures are arbitrary, and lack well supported evidence and understanding of our process for investment. The Corporation has addressed the ERA concerns with our capital expenditure forecast below.

### *Optimisation of Investment process*

The Corporation notes that the ERA has concluded that the Corporation's past capital expenditure has been found to be prudent and efficient. As a result, $3,521.5 million (real dollars at 30 June 2016) has been included in the Water Corporation's asset base over the five year period 2011-12 to 2015-16. The Corporation further notes that we were requested by Government to reduce our capital expenditure program in the forward estimates as part of the corrective measures during the 2014-15 Mid-Year Review. We prioritised and deferred capital expenditure based on information we have assessed through asset monitoring and balancing the trade-off of risk and impact on customer outcomes to achieve the required savings. This is an ongoing process.

The Corporation develops Strategic Investment business cases over 20 years linking customer outcomes and asset performance that align to our corporate and asset management objectives of providing services which are safe, reliable, cost effective and compliant with regulatory obligations. This process is further supported by a detailed bottom up analysis of projects in the forward program to confirm need, scope, timing and deliverability of the program.

The asset investment program (AIP) focusses on a five-year period for budgeting purposes and informs our 1 year Statement of Corporate Intent, the 4 year forward estimates and our 5 year Strategic Development Plan. We also provide a 10 year Strategic Asset Plan to the Department of Treasury that provides further information on levels of service, growth, drivers and risks.

### *Estimation*

In its Draft Report the ERA recommends a one off 5% reduction in future capital expenditure in 2018-19 as a result of a perceived systemic overestimation of costs in the capital expenditure plan by the Corporation. Cardno reported that there is an incentive built in the cost estimating team's KPI to forecast conservatively and that the team's aggregate estimates have generally been higher than outturn costs In fact the Corporation's estimating team does not have any financial incentive to overestimate. Cardno has misconstrued the Corporate Dashboard KPI, an internal group performance measure, as being an incentive from which staff are remunerated when they achieve an estimate within a range. This is not the case.

The Corporation submits that all of the estimates produced for the capital program are developed following the approved internal approach and incorporate pricing templates that the estimating team developed from the cost database of historical and third party industry information.

The Corporation's project estimates are structured in accordance with best practice such that every line item is considered individually taking into account factors such local labour availability, mining activity, material shipping costs, accommodation requirements. This allows the estimator to take into consideration the individual knowns and unknowns that may apply to each element of a project. When the estimation is aggregated back to a project cost, the Corporation then looks at the overall cumulative percentage, to ensure that the overall contingency is deemed to be in an acceptable range. The acceptable range has been derived from a number of exercises that have been carried out over the years, utilising the value of let contracts versus final actual costs. These exercises are continually carried out to ensure market conditions are reflected in the acceptable ranges.

As such, there is a substantial amount of data to supporting the allowances. With regard to Cardno's findings that the Corporation's location factors in the estimation process are subjective, the Corporation submits that it has developed factors for the majority of locations in WA. These are based on a combination of historical data and published factors from the Rawlinson's pricing book as a check against bias.[1] .

Whilst the Corporation understands ERA's concerns at retaining large contingencies at program level, it is of the view that the Corporation's process remains prudent and including contingencies based on our knowledge of market forces, delivery uncertainties and regional factors on a project by project basis. As identified when Cardno was onsite, the project price is refined through the various stages of delivery of a project – from planning to delivery. As noted above there is no incentive for the Corporation to overestimate.

The Corporation strongly rejects the recommendation to apply a one off reduction of 5% for systemic overestimation. Over the past few years the Corporation has seen a number of projects delivered higher and lower than internal estimates. As highlighted above, the processes used ensure that where industry costs are coming down, we capture these movements, and factor such reductions (or increases) into future estimates.

The Corporation submits that the one hour spent discussing the estimation process at the onsite interviews and the level of information exchanged by the Corporation was inadequate for Cardno to come to such a conclusion with such certainty to recommend a 5% reduction will result in efficiencies being achieved.

### *Base Capital – Water & Wastewater*

In its report Cardno noted that recent performance trends suggest the Water Corporation's performance is broadly stable and water Corporation and meeting its KPIs. The ERA agreed and recommended an adjustment to be phased in 2018-19 to maintain water base capital expenditure equal to the average level of spend between 2011-12 and 2015-16.

This position by Cardno and the ERA has resulted in a net reduction of water base capital of $249 million from 2017-18 to 2022-23.

The Corporation rejects the ERA's recommendation on the following bases:

- As noted by the Corporation in our submission dated March 2017 the inflow and rainfall trends in the past 10 years have been severely low. In particular in 2015 the dams supplying the IWSS only achieved 16GL[2] of inflows – a shortfall compared to what was needed to supply the IWSS customers. This shortfall was compounded by a series of previous low inflows increasing the risk that the Corporation would not have enough supplies to service the IWSS customer base in 2019.

- Some of the base capital in the Corporation's AIP is attributed to the preparation of the infrastructure for a new source that is not climate reliant – a desalination plant. This is predominantly lead work on planning and environmental approvals. It also includes work that would need to be done to expand the current IWSS network to transport water from a new source.

- The above mentioned impact of climate change on IWSS supplies has meant that the Corporation has had to reprioritise the AIP by using funds allocated asset renewal expenditure to fund climate

[1] a book developed by a firm of Quantity Surveyors
[2] Note that the 16GL inflows stated here includes Stirling Dam and Samson dam inflows for the Water year April – March. The total inflow can vary depending on the basis on which the inflows are measured, i.e. Water year (April – March) vs Financial year (July – June).

independent water sources. This consistent underspend on asset renewals between 2012 and 2015 has meant that the risk of failure of infrastructure has increased significantly.

- The analysis undertaken by Cardno and the ERA fails to take into account forecast performance over time. Due to the long life nature of water and wastewater assets, there needs to be a consistent investment in asset renewals to sustain customer service and minimise traffic disruption and protect public safety over time.

- The Cardno and ERA recommendations also fail to take into account that the performance levels achieved by the Corporation have only been possible because of the ongoing monitoring of system breaks and timely response. The KPIs are still being achieved at this point because of the ongoing planning and risk assessment work that has gone into preventing leaks. This work has resulted in increased operational costs and is discussed in more detail under 'Utilisation of Transformation Savings' below.

- The reduction of the forecast base capital expenditure for water of $249million over 5 years as recommended by the ERA would have a dramatic effect on the Water Corporation's ability to manage risk and deliver services to customers to meet the service objectives outlined in the Strategic Investment business cases and Strategic Asset Plan.

### *The 2% efficiency factor for competitive supplier environment*

The ERA has recommended a 2% efficiency adjustment be applied to the Corporation's expenditure to reflect the current subdued state of the Western Australian construction sector. The ERA states that the Corporation's cost estimates have not factored in any reduction in construction costs. The Corporation rejects this recommendation on the basis that all historical contract prices are continually added into our data base through the collection process that takes place by the estimating team.

The Corporation also makes the point that the ERA has accepted, without amendment, in its Draft report the Corporation's demand forecasts between 2018-19 and 2022-23 which indicate growth in the economy is expected to improve by 2022-23. This Corporation submits that the economy is forecast to grow, and the recent State Budget confirmed this forecast.

The Corporation therefore rejects the ERA's recommended 2% adjustment against capital expenditure. Not only is the adjustment unsupported by the forecast increase in construction and mining activity in Western Australia over the forward period but the Corporation submits that the ERA has not provided any justification for a factor of 2% being applied. This figure, like many of the other efficiency targets recommended by the ERA appears arbitrary and lacks any meaningful link to Corporation's performance.

### *IT & Retail SIBC*

The ERA has recommended a reduction in the proposed capital expenditure program for information technology and retail. The Corporation has been engaged in a major business transformation initiative since 2015-16 based on improving efficiencies through adoption of digital technology. As is the case with our people strategy and business transformation, the Corporation is taking a considered and balanced approach to determining future investment in this area. We have included in our forecasts, IT and retail initiatives around billing and customer relationship management as well as support for our enterprise operating model such as enhanced field mobility and connectivity. While there remains some uncertainty as to the exact nature of each of the individual components, the Corporation has indicated its best estimate of timing and level of expenditure required.

The Corporation rejects the ERA's proposed amendments to future capital expenditure on IT and Retail.

### *Conclusion*

The Corporation rejects the ERA's recommended future capital expenditure profile over the forecast regulatory period.

The Corporation is of the view the recommended reductions that are made with respect to removal of projects from the forward looking AIP and reductions in base capital for water and wastewater are based on limited time to understand our projects and the risks associated with the network.

The Corporation rejects the ERA's four recommended efficiency factors on the basis they are arbitrary reductions in future expenditure and are not a response to perceived deficiencies in our internal processes but a response to the cyclical nature of WA economy.

The Corporation is committed to improving efficient performance and maintaining a capital program that ensures security of supply of water services for the state. The Corporation has committed to Government through the 2017-18 budget process that it would reduce operational and capital expenditure through a strategic and thorough risk assessed process. To simply apply the ERA's once off recommendations without regard to the risks associated with providing all services is not appropriate.

## Operating Expenditure

The ERA has recommended an overall reduction in the Corporation's forecast operational expenditure over the period of 2018-19 to 2022-23 as compared against the position submitted to the ERA in March 2017. The recommended reductions are derived from a series of changes to the process for developing the Corporation's operating budget. The Corporation rejects these reductions in their entirety and provides the following in support of its rejection:

### *Base Year*

The ERA has relied on the Cardno findings to recommend that the efficient operating expenditure forecast for the Corporation should be developed from a base year that reflects actual costs. The ERA has recommended that this base year is 2015-16.

The Corporation welcomes the establishment of an updated base year for determining efficient operating costs. However, as advised to Cardno and the ERA, the Corporation embarked on a major organisational transformation which commenced in 2015-16 and is still underway. The delivery plan comprised four programs of work:

1) Reshape – a series of projects to align the organisational structure and operating model to deliver operational efficiencies;
2) Revitalise – process of business review, implantation of structured operating system and active management behaviours to deliver a sustainable, efficient operating model with resourcing aligned to business need;
3) Refresh – exploring a vanilla asset management approach;
4) Redesign – a major organisational redesign and people strategy to define our future state and human capital profile requirement.

Adopting the base year of 2015-16 without adjusting for the new roles which have since been identified and created understates the labour budget considerably.

The phased in approach to right sizing is transparent and was supported by the Government of the day. It has allowed us to properly embed some of the structural changes, ensure that each new position is indeed necessary and results in a work force with fit for purpose skillsets. As the restructure has occurred over time, the full year financial impact will not be reflected in budgets until completed. The labour budget must therefore be adjusted to accommodate the increase in positions.

We reiterate our earlier advice that forecast increases in labour costs for both the internal labour force and external alliances were adjusted downwards in the updated financial forecasts provided to the ERA in May 2017. The commentary by Cardno and the ERA on the appropriateness of escalating labour costs by 2.75% is therefore not relevant.

### *Utilisation of Transformation Savings*

The ERA has recommended the removal of a number of other financial components from the base year operating expenditure budget, one in particular is the projects that are associated with the utilisation of transformational savings that the Corporation rejects.

As noted above, we gain certainty of budget funding on an annual cycle rather than over a 5 year period. We were requested by Government to reduce our forward estimates as part of the corrective measures announced during the 2014-15 Mid-Year Review. In order to identify which projects should be removed or deferred over the out years, we need to undertake an assessment of which projects to defer or cease by understanding the impact on customer service levels and risk profile. It would be inappropriate not to undertake some sort of analysis and prioritisation of what to defer, cease or remove on the basis of a thorough assessment. The Corporation incurred additional expenditure of $2.5m in 2015-16 on asset infrastructure monitoring, deferred capital contingency funding, and outcomes from optioneering. As there are a number of years to work through, this additional operating expenditure is of a recurring nature and should be retained.

It was also recognised that we may incur additional operating expenditure as a result of delaying investment. Of the savings achieved through its organisational transformation, the Corporation reinvested $7.0m into the business mostly into maintenance programs, to better manage our asset risks. This benefitted customers via service reliability. There are a number of years to work through so this additional operating expenditure is also of a recurring nature and should be retained.

### *Efficiency mechanism target*

The ERA has recommended an efficiency target reducing real base operating expenditure per connection by 2.5% per annum.

It has appropriately determined that some expenditure should not be subject to this efficiency target. In particular, the ERA has recognised that the Corporation has negotiated a number of contracts with built in efficiency factors and that these should not be subject to additional efficiency targets.

However, the ERA has not captured all the expenditure associated with our desalination alliances plus our ICT contracts nor has it taken into account major contracts which have recently been competitively tendered such as our vehicle fleet and parts of our energy budget. All of these elements should be removed from the base operating expenditure subject to the efficiency target.

As a result, the Corporation rejects the ERA's proposed efficiency target for operating expenditure.

## Rate of Return

The ERA has recommended a pre-tax real rate of return of 5.02% for this inquiry. However, it is not clear how the ERA has drawn a number of its conclusions since there appears to be inconsistencies contained within its derivation of certain elements of the rate of return:

1) The ERA states it is using a 10 year risk free rate on page 28 of the draft report but describes the reasons behind adopting a 5 year risk free rate on page 366;
2) Evidence is presented on equity betas of 0.75 observed in a sample of water companies but the ERA rejects this in favour of a beta of 0.7 because it is of the view 'there is no intuitive reason why equity beta should be higher for water than energy utilities';

3) The ERA's rejection of the trailing average is based on the fact that at this point in time a debt portfolio made up of borrowings negotiated in earlier years might be greater than today's cost of equity based on a theoretical model[3]. This is despite the fact that most other Australian regulators have accepted the approach.

The Corporation has requested that the Western Australian Treasury Corporation (WATC) undertake a review of the ERA's recommendation on the rate of return and to provide its opinion on what an appropriate return should be.

The Corporation rejects the ERA's recommendation on rate of return.

## Inflation

In developing the efficient revenue recommendation the ERA adjusted the Corporation's required revenue model from nominal to real dollars by removing inflation from the asset base, depreciation schedule, capital and operational expenditure and applied a pre-tax real rate of return.

The Corporation accepts that use of the all 8 capital cities CPI to escalate forecasts is an accepted regulatory principle which has been accepted by the Australian Competition Tribunal.

However the Corporation submits that this principle does not achieve the desired outcome for a Government Trading Enterprise providing forward estimates for budgeting purposes. Forward estimates must be reflected in nominal dollars as the values are intended to reflect the most likely impact on State finances. To do this, the values therefore need to reflect differences in expected rates of inflation specifically in Western Australia. The Corporation submits that it intends to continue preparing its OCI and CCI to best inform Government of the forecasts costs the Corporation is likely to incur in future years.

## Tariff

The Corporation agrees with the ERA's recommendations that the structure of tariffs for water services need to be reformed to remove unnecessary complexity and costs associated with administering these arrangements. We note that there are a number of policy issues captured in the current tariff structures so the Corporation submits that care needs to be taken to arrange any reforms in an orderly manner.

One tariff that the ERA has spent considerable time developing for this Draft report is the second taper of volumetric charges for water. Historically, this tariff was set with reference to the long run marginal cost (LRMC). The nexus between the second taper charge and LRMC was broken when the Government did not adopt the ERA's recommendations in the 2012 Inquiry. The ERA has developed a lower, mean and upper estimate of the LRMC of water that can be used to inform the level of tariffs for the three metropolitan usage tiers, as follows, in 2017-18 dollars:

- Lower estimate: $0.97/kL, compared to $1.68/kL currently;
- Mean estimate: $2.32/kL, compared to $2.24/kL currently; and
- Higher estimate: $3.60/kL, compared to $3.17/kL currently

The Corporation has reviewed the ERA's proposed second taper changers via the ERA's workings in its LRMC model and believes the ERA has applied the model in a way the contains unsupportable outcomes. The Corporation is hoping to work closely with the ERA to share our LRMC and its findings to ensure the recommended second tier represents the marginal cost for supplying water in the Integrated Water Supply Scheme should Government choose to adopt this approach or other recommendations in respect of tariffs.

---

[3] The Sharp Lintner Capital Asset Pricing Model

The Corporation advises it is currently conducting a tariff reform project that reviews water, wastewater and drainage tariffs to develop more relevant and fit for purpose tariff structures. We are also seeking customer feedback on changes to tariffs through the whole of business customer engagement program, known as Tap-in.

The Corporation is committed to working with the ERA and Government to ensure tariffs are reformed in a way that has as little impact on customers while maintaining the security of revenue for services delivered.

## Material Variations

The ERA has recommended that all variations to operational expenditure recommended as efficient by this Inquiry that are above $6 million, and all variations to capital expenditure above $25 million incurred outside the approved capital expenditure in this inquiry, is reviewed by a third party before the expenditure is allowed to go ahead.

This level of scrutiny is known as a prudency test and is applied to fully regulated entities such as Western Power. It is unclear how this mechanism will be applied to the Corporation without the regulatory framework to which a business such as Western Power is subjected.

We support the establishment of a framework and test for prudency that the Corporation can apply internally and use to justify expenditure at the next inquiry. We are therefore keen to explore with the ERA how we could achieve this in the absence of a formal framework.

## Conclusion

The Corporation has responded to the ERA inquiry process with best endeavour to achieve a useful outcome for the ERA, the Government and the Corporation's customers. The inquiry process has been difficult due to short time frames and short notice of the inquiry and the need for financial information not normally produced for State budgeting purposes.

Despite the fact we have rejected some recommendations, the Corporation is committed to continually working to improve our processes and financial position. During the period between April and September 2017 a number of changes have been made with respect to our financial position as a result of changes in Government policy and internal reviews.

The Corporation will work closely with the ERA between the draft and final recommendations to share information that will enable the ERA to consider the position we have put forward in this response document. This includes assisting the ERA to understand the financial position of the Corporation after the recent State budget and the flow on effect this may have on the Corporation's ability to achieve the efficiency measures the ERA has proposed.

In preparation for the next Inquiry the Corporation will seek to work with the ERA to add structure and certainty around time frames, material to be provided and the basis on which it will likely test our capital and operational expenditure for efficiency.