Submission on the Economic Regulation Authority's Draft Report Inquiry on Harvey Water Bulk Water Pricing

Preliminary Views and Issues for Further Consideration

19 January 2007

WATER CORPORATION

Contents

1. Introduction

The Water Corporation submits the following response to the Economic Regulation Authority's (ERA's) Draft Report on the Inquiry on Harvey Water Bulk Water Pricing.

The Water Corporation is generally supportive of the approach proposed for developing the prices for irrigators, but does not support the proposed approach being labelled as an "upper bound" price. The proposed prices do not represent an upper bound price for non-irrigation customers of the dam storage service (eg customers of the Integrated Water Supply Scheme (IWSS)).

The Draft Report contains some conclusions as to the motivation behind the original Bulk Water Supply Agreement (BWSA) pricing decisions that are not consistent with the policy decisions made at that time.

The key consideration for the Government at the time the South West Irrigation Districts were privatised was whether to continue with irrigated agriculture or close the irrigation districts and revert to dry land farming. The decision to continue with irrigation was marginal, with the overall economics being justified on the assumption that the water resources would only have an alternative use in the longer-term, and was dependent on the inclusion of the cost of closing down the districts to justify continuation.

The decision that flowed from this situation was that the irrigation cooperatives were established with a transfer of the distribution assets at a zero value. Some expenditure was made on deferred maintenance and an operating subsidy was paid with a five-year phase-out period. The charge for the bulk water storage service for irrigation farmers only was based on a "lower bound" renewals price.

Contrary to the suggestion made on page 9 of the Draft Report, pricing was not based on a regulatory asset value of zero. Harvey Water customers other than irrigators were specifically charged a different, higher storage charge. The Water Corporation uses the dams to store water for the IWSS. This portion of the dam cost is allocated to and paid for by the customers of these services or through a Community Service Obligation (CSO) payment. For example, the Water Corporation's CSO payment is reduced as the proportion of costs allocated to the IWSS increases with the Harvey Water Trade.

At the time of the privatisation, the Government made explicit policy decisions on:

- a renewals pricing approach for irrigators, with recovery of dam safety expenditure when the magnitude was known;
- an opportunity cost pricing approach for Harvey Water's non-irrigation customers;
- a 15% cost allocation to non-consumptive uses (recreation); and
- CSO payments that recognise the value of the dams at their written down replacement cost.

Lower Bound Pricing

The Water Corporation agrees with the ERA that a continuation of the renewals method should be used to calculate the minimum bulk water storage charge for irrigation farmers and that this calculation should carry forward the renewals annuity contributions from the original BWSA.

The Water Corporation does not see this charge being materially inconsistent with lower bound pricing as defined by the National Water Initiative (NWI) Agreement. The charge was initially designed to be a "lower bound" price over time, with the pattern of payments including a medium-term commercial premium to avoid the need to borrow to renew the assets. This has an impact on the timing of cost recovery but has no impact on the overall long-term cost recovery.

Subtleties such as the level of debt funding and dividends would have little material impact. The Government has accepted that the renewal annuity for future capital replacement is effectively invested at 6% real before tax, and that this return is applied for the benefit of the irrigators in accumulating funding for asset replacement. It should be noted that the Water Corporation's return is independent of this assumption as it is underwritten by a CSO payment.

Upper Bound Pricing

The establishment of upper bound pricing is important for determining the bulk water charge for customers other than irrigation farmers, such as the Corporation's IWSS customers and Harvey Water's "non-allowable" customers. The Draft Report has ignored the current pricing approach to these customers and has erroneously assumed that a "line-in-the-sand" zero regulatory asset base has been adopted.

The Corporation notes that the NWI definition of upper bound pricing is for the purpose of avoiding monopoly rents and is associated with full cost recovery. The use of a lower regulatory asset value in such a calculation is inappropriate as regulatory asset values that are lower than deprival value are a result of the inability or unwillingness to recover full costs, rather than a component of the full cost calculation.

2. Dam Safety

The Draft Report poses the question of whether the dam safety expenditure on the south west dams is efficient. Care needs to taken in considering this issue not to confuse an assessment of what is an "economically efficient" dam safety program from the community's risk portfolio perspective with the efficiency of the delivery of the program the Water Corporation is obliged to deliver under the current institutional arrangements.

The Water Corporation clearly has an obligation to manage its dams in a manner that is consistent with the Australian National Committee on Large Dams (ANCOLD) guidelines. While there may be a view that the ANCOLD guidelines could result in "inefficient" expenditure from a community risk reduction perspective, this doesn't imply that the Corporation is being inefficient in its delivery of the program of dam safety works.

The suggestion by ACIL Tasman on page 25 of the accompanying paper "*Harvey Water Supply System: Safety Standards and Compliance*" that the Corporation has natural incentives not to exercise discretion in the application of the guidelines to reduce costs is not correct. The reality is that the Corporation's dam safety program forms part of a much broader capital program that is managed in a portfolio manner where funding is limited. Additional expenditure on dam safety means lower expenditure on projects to reduce risks in other parts of the business. Contrary to the conclusion implied by ACIL Tasman, there is a strong incentive for the Corporation to minimise expenditure on dam safety.

The Water Corporation is entitled to recover the costs that are legitimately incurred under the current institutional arrangements. It is a matter for the Government to put in place alternative regulation if this will result in more "efficient" expenditure from a community risk portfolio perspective. The possibility of alternative regulation has been discussed by the Water Corporation, the Department of Treasury and Finance, and the Department of Water over many years. The current program has been developed and accepted within the budget process as necessary under the current institutional arrangements.

The ERA may provide advice to the Government on the opportunity to reduce dam safety costs through changing institutional arrangements. However, pricing recommendations should allow the Water Corporation to recover costs that it must legitimately incur.

It should also be noted that any costs that are not recovered from the paying beneficiaries of the dams (ie irrigators, major consumers, IWSS customers, etc) will be incurred by the community in general. Any recommendation to subsidise irrigators should therefore include some discussion as to why the allocation of costs to taxpayers is either efficient and equitable or necessary.

Much is made of the increased size of the dam safety program since the BWSA was signed in 1996. The increase has been due to detailed investigations being undertaken to determine the works required. It should be noted that the cost was not included in the 1996 price due to the uncertainty associated with the estimate as these

investigations had not been completed. While the increase is probably larger than was expected, the potential for the program to increase could have reasonably been anticipated.

It should also be noted that the dam safety program for the South West dams represents a cost of 3c/kilolitre. While this is of significant magnitude for irrigation farmers, it is a cost that could now be comfortably absorbed by other water users. This indicates that the increase in the dam safety program has been more than matched by the increase in the opportunity cost of the water used by irrigators. Consideration needs to be made of the net change in circumstances, including both positive and negative changes.

If it is determined the irrigators will pay less than the their share of dam safety costs, as currently applies for the works at Waroona Dam, consideration should be given to determining an amount to be paid based on capacity to pay, rather than a percentage of costs. This will ensure that if the program changes, for example due to changed institutional arrangements, the irrigators make the same “affordable” contribution.

3. Comments on ERA Preliminary Views and Issues for Further Consideration

Preliminary Views

1) It would be appropriate to apply the NWI upper bound pricing principle for the purpose of determining the costs of operating and maintaining the irrigation dams.

2) The appropriate asset value as at 30 June 2006 is consistent with a zero asset value as at 30 June 1995, rolled forward by adding appropriate dam safety and other capital expenditure, subtracting depreciation and adjusting for inflation.

The proposed estimate of an upper bound price based the (deprival) asset value based on a zero asset value as at June 30 1995 is flawed as:

- the assumption of an implicit initial asset value of zero is not correct as discussed in the Introduction above; and

- the resulting estimate from this approach is not an upper bound price.

The ERA appears to be seeking to continue the existing renewal approach but to relabel it an upper bound price. The Water Corporation supports this calculation but not its description as an upper bound price. This point is important as irrigators are not the only customers of the storage service, and describing this price as an upper bound price may place an artificial limit on other prices, which would ultimately be at the expense of Western Australian taxpayers through higher CSOs.

Preliminary View

3) It may be appropriate to phase-in the upper bound charges over a reasonable period, such as ten years.

An upper bound pricing approach may not be appropriate for irrigators given the original privatisation and storage agreement was based on a renewals approach.

The need for a phase-in period will depend on the size of the increase and the farmers' ability to pay. If a change in the institutional arrangements that govern dam safety were to be effective in reducing the size of the dam safety program, price increases would be less and the time period for the phase-in could be less.

Phase-in arrangements are generally determined as part of Government policy, after consideration of impacts on individual customers and on the State's financial position. The ERA should provide advice on phase-in options and their impacts for the Government to consider, rather than try to determine what a reasonable period is.

Issue for Further Consideration

4) Should Harvey Water's dam safety payments be treated as capital contributions?

Dam safety payments should be treated as cashflows in the costing model, making it irrelevant whether it is treated as a capital contribution.

It should be noted that the dam safety payment for the Waroona Dam upgrade represented 30% of the annualised cost of the upgrade. It was 30% of a renewals annuity that recovered the cost of the works over the life of the asset at a 6% real rate of return. As such it would not build up any "pre-paid" capital entitlement in the dam.

Issue for Further Consideration

5) To what extent should the dam safety expenditure incurred since 1996 be rolled into the regulatory asset value?

As discussed above, the Corporation does not view the proposed method of calculating the charges through a regulatory asset value approach as valid.

To the extent that the dam safety expenditure is part of a renewals calculation that would give a similar result, it was contemplated to be included in the charges in 1996 and, therefore, should be taken into the calculation.

The issue to consider is what proportion of the total cost should be attributed to Harvey Water, and then this should be rolled into the renewals charge calculation.

Preliminary View

6) Whether the new agreement is based on a smoothed revenue requirement or not is a matter for the Corporation and Harvey Water to agree.

The current BWSA is based on the renewals costing model smoothed over 100 years. The dam safety payments are similarly calculated. The Water Corporation expects that this arrangement would be carried forward into the new agreement as this arrangement helps create cashflow certainty for Harvey Water.

Preliminary View

7) Dam safety expenditure is subject to significant diminishing returns (i.e. as expenditure progressively increases, the reduction in risk progressively decreases).

The Water Corporation's dam safety remedial works program is structured to tackle the highest risks first so diminishing returns as expenditure increases are fully expected. This alone does not mean that future projects are not justified. For example, the risk assessment for Wellington Dam has shown it to exceed the ANCOLD "limit of tolerability" risk by 100 times.

Preliminary View

8) The application of the ANCOLD Guidelines gives rise to a substantially greater amount of expenditure on dam safety in comparison to expenditure on safety elsewhere in the economy.

The logic behind this view is based on the estimation of cost per life saved (CPLS). CPLS can be calculated from the outputs of risk assessments.

The Corporation has used the risk assessment methods proposed in the ANCOLD Guidelines on Risk Assessment to gain an understanding of the risks associated with

its dams. The guidelines give the dam engineering community tools to estimate the likelihood of dam failure and consequences of dam failure. To quote the guidelines: *"these tools can be imprecise and inconsistent"*.

Identifying failure modes and assigning likelihoods to these failure modes has been done by the Corporation for its dams using detailed risk assessments. These rely on expert opinion and judgement to estimate the likelihood of failure. The consensus from all the dam engineering experts that have been engaged on these assessments is that the accuracy of the estimate of likelihood of failure is no better than plus or minus one order of magnitude.

The consequences of failure, in this case the Probable Loss of Life (PLL), was estimated using a procedure developed by the United States Bureau of Reclamation, a major dam owner in the USA. This method is widely accepted as the best method currently available. But the estimate of PLL is very imprecise. Small differences in warning time, the effectiveness of communications, the preparedness of the community, the opportunity to escape and luck all have a large influence on the magnitude of the disaster. Again the accuracy of the estimate is no better than an order of magnitude.

The CPLS calculation includes the product of these two variables, so its accuracy is no better than plus or minus two orders of magnitude. For example, on page 22 of the Draft Report a CPLS for dam safety improvements of $65 million is quoted that implies some precision in the estimate. In reality the best we can say from our risk assessment work is that the actual CPLS probably lies in the range that would put the dam safety project justification somewhere between strongly justified to completely unreasonable.

The CPLS figure is therefore questionable when attempting to quantify the justification for a dam safety project. The Water Corporation does not use CPLS as the justification for dam safety projects.

Risk assessment for the justification of dam safety is generally not accepted in most countries and the guidelines have been subject to adverse criticism by international reviewers. Most countries rely on a standards based approach to assess dam safety and this is the case in Western Australia. All six of the South West irrigation dams fall well short of standards. Under its legislation, the Water Corporation must respond to the regulatory environment in terms of the risk to our business, not as part of a whole of government risk assessment.

The Water Corporation uses risk assessments to prioritise dam safety projects and to compare options for dam safety upgrades. Here we are not relying on the quantum of the calculation but we are following a consistent approach in assessing the risks of each dam and therefore enabling the relative merits of each project (or option) to be compared.

Using CPLS figures from a dam safety risk assessment to compare with other safety risks from other industries, where there can be no consistency of approach, is considered inappropriate. The guidelines note:

"Risk analysis does not tell us, however, which projects we should undertake; rather it is a decision making tool to assist us to understand the risks that the structures represent and the benefits of options available. It will always be the prerogative of politicians, acting on behalf of the community, to decide between conflicting priorities and to compare the large range of non-quantifiable benefits which can flow from each of the choices available to them"

Preliminary View

9) Although the costs of protecting management liability, through compliance with ANCOLD Guidelines, could be viewed as a legitimate cost of doing business, levels of risk vary with interpretations of legal liability.

The Water Corporation's Board has to make its own assessment of its legal liability and respond appropriately.

The dam safety liability assessment was not made on the basis that funding is unlimited and costs can be simply passed on. The Corporation's dam safety program forms part of a much broader capital program that is managed in a portfolio manner where funding is limited. There is a strong incentive for the Corporation to minimise expenditure on dam safety.

It should be noted that third parties may offer an interpretation of legal liability, but there is little incentive to undertake this assessment based on the true value of reducing management liability.

Issue for Further Consideration

10) The suggestion by interested parties that society's aversion to particular types of risk could justify additional expenditure to reduce those risks is a matter that requires verification.

It would appear evident in people's behaviour and decisions that society has a greater aversion to particular kinds of risks than others. The assertion that people have a uniform risk profile would seem to be a proposition that needs verification.

The issue for this report is whether dam failure is the type of risk the community is willing to spend more on to reduce, and the communities aversion to events that result in the loss of multiple lives where the victims have no choice or control would suggest that it is. Dam safety risk has been universally treated this way throughout the world.

Preliminary View

11) It is likely that a company operating in a competitive market would implement the dam safety program in a different manner to that of the Corporation.

It is difficult to see how the issue of a competitive market would impact on dam safety expenditure. The Corporation or any private company would operate in the same regulatory and legal environment, and corporatisation means the Water Corporation

Board undertakes the same risk assessment as a private company. This preliminary view could only be sustained if there was a view that the Corporation has an incentive and opportunity to over spend on risk reduction which is clearly not the case.

A competitive market would more likely result in water storage charges at the stand alone cost of alternative sites. This would likely be above the full cost of the current service as potential alternative storage sites are limited and more expensive and the opportunity cost of the water has increased.

Preliminary Views

12) There is merit in the State Government developing regulatory instruments that incorporate comparable measures for expenditure on life safety throughout the WA economy.

13) There may be a case for establishing a separate body to oversee dam safety standards in WA, such as an equivalent to the NSW Dam Safety Committee, or a wider Office of Safety to oversee safety standards more generally.

14) Given that the proposed expenditure on dam safety is subject to significant diminishing returns, it is likely that the timing and sequencing of the dam safety programme could be better aligned with opportunities to improve life safety elsewhere in the economy.

It is a matter for the Government to put in place alternative regulation if this will result in more "efficient" expenditure from a community risk portfolio perspective. The possibility of alternative regulation has been discussed by the Water Corporation, the Department of Treasury and Finance, and the Department of Water over many years. Until some action is taken, pricing should be based on the current institutional arrangements.

As noted in 7) above, the Water Corporation's dam safety remedial works program is structured to tackle the highest risks first so diminishing returns as expenditure increases are fully expected. This alone does not mean that future projects are not justified.

Preliminary View

15) Pending wider considerations about the regulatory arrangements that could be implemented to guide expenditure on safety, the new BWSA could be based on an assumption that a certain proportion of the dam safety costs are passed on to users.

Pricing decisions should be made based on the current regulatory arrangement. The potential to modify those decisions should the arrangements be changed at a later date could be built into the decision.

Any decision to pass on only a portion of the costs should be based on sound reasoning as to why the community in general and taxpayers in particular should bear the other portion of the costs.

If it is determined the irrigators will pay less than the their share of dam safety costs based on their capacity to pay, consideration should be given to determining an amount to be paid based on capacity to pay, rather than a percentage of costs. This will ensure that if the program changes, for example due to changed institutional arrangements, the irrigators make the same "affordable" contribution.

Issue for Further Consideration

16) What information should be taken into account for the purpose of determining the amount of dam safety costs that should be passed on to users?

Based on the 1996 agreement, it is expected costs will be shared between recreational and other beneficiaries (via the CSO arrangement), Harvey Water and the Water Corporation's customers in a way that is efficient and equitable. However, the extent to which costs are passed on to users other than Harvey Water and the Water Corporation is dependent upon Government policy and the amount that the Government is prepared to fund via a CSO.

Advice on the costs to be allocated to recreational and other use should have a sound empirical base if possible.

The Corporations supports the allocation of the remaining costs to Harvey Water and the Water Corporation's customers based on water allocations as given in the Allocation Licences issued by the Department of Water. The basis for this is that the Water Corporation owns the storage assets and passes on to Harvey Water their share of the costs of holding their water allocation. The Water Corporation holds Harvey Water's allocation regardless of the actual volume in each dam or the amount actually drawn by Harvey Water.

The following table shows the suggested cost sharing proportions for all dam costs as at 2005/06 based on the share of water allocations.

Water Allocations for Cost Sharing Purposes – 2005/06[1]

	Harvey Water allocation		**Water Corporation allocation**		**Total**
Dam:	Megalitres	%	Megalitres	%	Megalitres
Stirling	46,000	100%	0	0%	46,000
Harvey	11,000	27%	29,810	73%	40,810
Wokalup	0	0%	9,500	100%	9,500
Logue Brook	11,000	100%	0	0%	11,000
Total Harvey Irrigation District	**68,000**	63%	**39,310**	37%	**107,310**
Waroona	7,700	100%	0	0%	7,700
Drakesbrook	2,000	100%	0	0%	2,000
Sampson Brook	5,960	68%	2,790	32%	8,750
Total Waroona Irrigation District	**15,660**	85%	**2,790**	15%	**18,450**
Burekup[2]	68,000	100%	0	0%	68,000
Wellington		69%	30,250	31%	98,250
Total Wellington Irrigation District	**68,000**	69%	**30,250**	31%	**98,250**
Total Allocation	**151,660**	68%	**72,350**	32%	**224,010**

1. Allocations shown are on the basis that Harvey Dam (replacing Harvey Weir) and Wokalup Pipehead Dam were built to augment the IWSS. Therefore, the allocations shown for Stirling Dam and Harvey Weir reflect allocations as at 1996. Allocations also reflect the Harvey Water trades to date.
2. Burekup Weir is fed by Wellington Dam and is for the sole use of irrigators. To avoid double counting, the volume of Burekup Weir is excluded from the totals.

Preliminary View

17) While the dam safety expenditure can be regarded as a legacy cost, it would not be appropriate to exclude this expenditure from charges to current and future users because it is a cost that will influence decisions to access water from the dams.

The renewals price in the original 1996 BWSA assumed there were no legacy costs associated with the dams, including dam safety expenditure. The current institutional arrangements provide the Water Corporation with an obligation to meet the ANCOLD guidelines and as such cannot be avoided by the Corporation. The extent that Harvey Water's does not pay for its share of the dam safety costs means the cost burden is funded by a CSO payment.

Issue for Further Consideration

18) Is a comparison of the recreational benefits (derived from the Lucas study) with the irrigation benefits (derived from the value of temporary trades) an appropriate means of allocating the costs of Logue Brook Dam to Harvey Water, or are there alternative approaches that should be considered?

The 43:57 ratio calculated for the recreational benefits of Logue Brook dam has not been carried out on a consistent basis. The valuation of recreational benefits based on the Lucas study of 1c/kilolitre represents the full consumer surplus from the recreational benefits. The 1.3c/kL represents the marginal value of the water for a temporary trade between irrigators. This does not represent the producer surplus from using the water. The calculation is therefore inconsistent and not valid.

The use of the value of temporary trades within the Harvey Water cooperative offers little guide to the full value of the water. Farmers are restricted from trading to outside customers and, therefore, this market only reflects marginal local and seasonal values. For example, the value to a horticultural operation is likely to be much higher.

An assessment of producer surplus is required. If the average producer surplus is 10c/kilolitre the ratio becomes 9:91, 15c/kilolitre – 6:94 and 20c/kilolitre - 5:95.

An alternative would be to assess the opportunity cost of prohibiting recreation use of the dam. For example, if the Government chooses to allow recreation to continue on Logue Brook Dam, this implies a value of recreational benefits relative to the additional cost of developing other sources or the additional cost of treatment. While treatment is not a viable option, an assessment of the additional cost of alternative sources could be made. This is only a valid approach if recreation is maintained on Logue Brook Dam.

Issue for Further Consideration

19) Should the ratio of recreational to irrigation benefits derived for Logue Brook Dam be applied to the other dams with recreational benefits?

As noted by Harvey Water, the 15% cost attributed to all non-consumptive uses was not soundly based, and only has credibility from continued use. An assessment of the benefits dam by dam would produce a much more robust result.

The value per kilolitre of the benefits is very specific to Logue Brook and depends on the yield of the dam. If, for example climate change halved the yield, the value per kilolitre of recreational benefits would double, while the absolute dollar value remained unchanged. There is a similar problem translating a benefit per kilolitre to other dams.

Preliminary Views

20) There may be no net benefits associated with aesthetic and natural flood mitigation but the Authority welcomes submissions on these matters.

The Corporation notes the ERA's view that the costs and benefits of other community benefits may cancel out. While this is possible, this conclusion is only supported in the Draft Report by the assertion that measurement is not robust and is expensive to undertake. This brings to mind the similar nature of the risk assessments that are being put forward to assess the relative merits of dam safety expenditure compared other potential risk reduction expenditure.

Preliminary Views

21) The allocation of dam safety costs is complicated by the likelihood that some of these costs may not be directly attributable to Harvey Water.

The argument that the Corporation would continue to operate the dams whether Harvey Water required the storage service could equally work the other way. Harvey Water would require the storage services whether the Corporation continued to require their portion of the service, and on this basis they could be allocated the full cost.

The argument that the Corporation may maintain the dams to accommodate future trade would depend on taking a view that the irrigators could maintain their allocations if they did not use them. If this situation were to occur, the opportunity cost of the water is such that the Corporation would be willing to take over the allocations and meet the full cost the dam safety program. The question then would be why the irrigators should be allowed to maintain their allocations without meeting the full cost of doing so.

Preliminary View

22) There would not appear to be any reason why non-irrigation customers should pay water storage charges that are higher than the costs attributed to them.

The issue here is what cost should be attributed to non-irrigation customers. One view is that they should pay the full cost based on the written down replacement cost. Under this method the customers would obtain the benefit of the relatively cheap existing water sources.

Another view is that they should pay the opportunity cost of the water as it relates to the long-run marginal cost of source development in the integrated scheme and would be consistent with the pricing approach taken by the ERA to urban water pricing. This is essentially the approach taken in the original BWSA Harvey Water for non-irrigation water use. This charge was based on a calculation of the long-term opportunity cost of water for use in the Integrated Water Supply Scheme (IWSS). The opportunity cost calculation was done 12 years ago and does not factor in recent climate change. A similar calculation today would result in a much higher charge.

The original higher charge for non-irrigation water also reflects a State government decision to maintain consistency with the Water Corporation's other major consumers.

Issue for Further Consideration

23) Should the allocation of dam safety costs to Harvey Water be on the basis of water allocations or some other approach, such as the costs directly attributable to Harvey Water?

The Water Corporation supports an allocation process based on water allocation. As discussed in 21) above, the same method to allocate costs away from Harvey Water could also be used to allocate more costs toward Harvey Water.

Any consideration of reducing Harvey Water's allocation of dam safety costs should be accompanied by some discussion as to why the allocation of costs to other customers or taxpayers is either efficient and equitable or necessary for reasons such as affordability.

Preliminary View

24) In examining the impacts of the preliminary views above, the following assumptions have been made:

- The Corporation's projected operating expenditure for the South West irrigation dams has the same overhead rate applied as for the Corporation's major consumers.
- The productivity rate that applies to the Corporation has been applied to the operating expenditure on the dams.
- The Corporation's assumptions of asset lives for new capital expenditure (80 years) has been applied for the purposes of determining depreciation allowances in the Corporation's revenue requirement.

- A rate of return of 5.6 per cent (pre-tax real) has been applied in determining the Corporation's revenue requirement.

The Water Corporation supports:

- the use of the overhead rate it applies to its major consumers, as this ensures full cost recovery and avoids transferring the costs to other customers or increasing the CSO.

- an operating efficiency rate agreed with Government, after removing costs associated with level of service requirements, for example, the dam safety, occupational health and safety or water quality.

- asset lives for new capital expenditure that represent a weighted average life of new assets, which is weighted towards dams that have standard asset lives of 120 years.

- The Water Corporation currently uses a rate of return of 4% for assets held prior to its corporatisation in 1996 and 6% for assets subsequently acquired. It should be noted that reducing the rate of return to 5.6% will increase the renewal annuity component of the charge to irrigators.

Preliminary View

25) Given that the mix of fixed and variable charges is primarily a commercial issue to do with managing the volume risk of uncertain annual streamflows, it is unlikely that there is any reason for the Government to prescribe the structure of charges that the Corporation applies to Harvey Water.

The services provided by the Corporation are largely fixed cost in nature. The structure of the water storage charge should, therefore, be predominantly fixed.

The ERA should note that the pricing structure will impact directly on the Government through the impact on CSO payments. The Government therefore takes the risk associated with the proportion of the charge that is volumetric. As such, the structure of the charge is more an issue for the Government than the Water Corporation.

Issue for Further Consideration

26) Is the approach used by the Authority to estimate the impacts on Harvey Water and its shareholders appropriate or are there other approaches and assumptions that would improve the accuracy of the impact assessment?

From Section 7 Impact on Harvey Water and Appendix 2 of the ERA's Draft Report, it is difficult to make a clear assessment of the results without having the financial model available to view. However, it would appear from the Draft Report that they are not based on upper or lower bound pricing. The Water Corporation re-iterates earlier comments in this paper in Section 1 Introduction about the interpretation of upper and lower bound pricing.

4. Other Comments

It is noted section 1.2 refers to eight dams that supply Harvey Water. There are in fact nine dams/weirs: Stirling, Harvey, Logue, Wokalup, Waroona, Samson Brook, Drakes Brook, Burekup and Wellington.

Section 1.2.1 states that Waroona and Harvey irrigation systems are connected to the Stirling Trunk Main. This is not the case.

Figures 4.1 and 4.2 in section 4.4.6 are one view of the water allocations. The Department of Water has issued licences that set out the allocations of each user for each dam. However, the replacement of Harvey Weir with Harvey Dam, and the construction of Wokalup Dam and Samson Brook Pipehead Dam, and additional works at Stirling Dam were for the purpose of augmenting the IWSS. As a result, the Water Corporation passes the costs associated with these works onto customers of the IWSS.

The Water Corporation favours using water allocations as at 1996 to allocate costs, plus the adjustment in 2001 for Stirling Dam allocations and the impact of the Harvey Water Trades.