

MURRUMBIDGEE IRRIGATION

A.C.N. 084 943 037



Location: Leeton, NSW
Contact Name: Geoff Hipkins
Our Reference:
Your Reference: 03/14

Richard Warner,
Program Manager,
Bulk Water Pricing,
Independent Pricing and Regulatory Tribunal of NSW
Sydney NSW 2000

Dear Richard,

I am very pleased to attach Murrumbidgee Irrigation's submission for the IPART review of bulk water prices from 2005/06.

I believe that you and John Howe, our Water Policy Manager, had previously agreed that the submission was required prior to the end of this week. Thank you for enabling us some extra time so that our Board could consider the contents prior to submission.

You will notice that we have structured our submission to reflect the issues raised in IPART's issues paper (Discussion Paper DP78) published last September. We have therefore taken the, perhaps, unusual step of not including an executive summary. If you believe that such a summary is needed please do not hesitate to contact us, as we can provide one within a matter of hours.

I trust that you find our submission helpful. The Company would be happy to assist if you need any further clarification or information.

Yours sincerely

A handwritten signature in black ink, appearing to read "G Hipkins", with a horizontal line extending to the right.

Geoff Hipkins,
Chief Executive

6 April 2005

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4. ESTABLISHING EFFICIENT COSTS

4.1 Costs of river operations activities

4.1.1 Operating expenditure

The Tribunal welcomes comments on:

- *The efficiency of the projected operating costs outlined in State Water's submission*

It is impossible to comment on the efficiency of operating costs without reference to comprehensive historical budgeted costs, actual cost outcomes, and actual outcomes in terms of the relevant services (performance auditing). Complete 'ring fencing' is also required (and as acknowledged by SW, p14 of 89, we are not there yet). But there are a couple of questions worth raising:

- Why such high costs of incorporation for State Water? The submission suggests that incorporation will cost customers about \$4.1m per year, which equates to an asset value of about \$68m using State Water's suggested discount rate of 6 per cent. (The \$1.4m saving from DIPNR won't be realised if DIPNR is allowed CPI adjustment of the last determination for WRM.) State Water should be asked to identify and quantify corresponding benefits.
- Why the enormous growth in budgeted operating expenses relative to recent actual expenses? Operating expenditure for the Murrumbidgee Valley is budgeted to increase from \$3.574m in 2004 to \$6.085 in 2006, a 70% increase over 2 years. The corresponding increase in all regions is 40%. If costs are substantially fixed this seems a very odd result if it is consistent with efficient operating expenses.
- The use of budget data for pricing is not consistent with an efficiency based approach. Budget estimates are not costs. Table 1 shows the difference between actual costs and budget estimates for the Murrumbidgee in 2004. Actual costs are significantly below budget for all types of expenditure in both SW and DIPNR – to the extent that the "user" share of budget costs actually exceeded costs in 2004.

Table 1:
Budget outcomes in Murrumbidgee versus actual outcomes for SW in 2004

	Budget	Actual
	\$m	\$m
Total operations expenditure	5,988	3,574
"User" share	5,019	3,408
Total capital expenditure (a)	3,016	2,089
"User" share	1,609	338
Total WRM expenditure	6,151	4,545
"User" share	3,665	na
Total expenditure	<u>15,155</u>	<u>10,208</u>
"User" share	10,293	8,291 max (b) 6,685 min (b)

(a) Excludes MDBC and DBBRC costs to better assess SW situation.

(b) Max. assumes that all "actual" WRM costs are allocated to users, and min assumes that all budgeted WRM activities allocated to Government were actually conducted.

Data sources: IPART determination 2001, and State Water and DIPNR submissions 2005.

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- The volatility of both SW's and DIPNR's estimates of efficient opex between years and regions seems inconsistent with the claims that costs are virtually fixed in bulk water supply. All stakeholders need to understand the sources of such volatility better.
- More detail is required at the Valley level about past costs and projections for all years. The structure of SW's submission should enable clear links between financial data and real world cost drivers and outcomes at the Valley level. State Water and DIPNR should not be rewarded for failing to provide such data after many years (during which they have argued strongly for full cost recovery). IPART should consider imposing an efficiency expectation (or cost "saving") for each year in the determination for which inadequate data is provided.
 - *Whether there is scope for State Water to achieve further efficiency gains over the next price determination period.*

If we use actual expenditure rather than budget data as the indicator of efficiency then there is significant scope for efficiency gains. If we use aggregate SW and DIPNR opex and WRM costs, the actual costs of \$8.119m relative to budget of \$12.139m in the Murrumbidgee in 2004 suggest efficiency gains of up to 33% may be possible.

Results such as these are not out of line with experience following the privatisation of Murrumbidgee Irrigation where efficiency gains based on actual costs have exceeded 25% - enabling quite stable pricing of water delivery in nominal terms over the last 10 years.

It would be interesting to contrast the experience of State Water and private service providers such as Murrumbidgee Irrigation in terms of relative wages since 2001. Anecdotal evidence from the MIA suggests that wage rates and average wages in State Water have increased markedly in recent years relative to Murrumbidgee Irrigation. If correct, this suggests weak linkages with paying customers and/or the presence of alternative cost drivers.

With the establishment of State Water there is an opportunity for Government to pursue efficiency gains by increasing the contestability of bulk water service provision. For example, through tendering of management contracts for State Water on a Valley by Valley basis.

4.1.2 Capital expenditure on long-lived assets

The Tribunal welcomes comments on:

- *The prudence of State Water's past capital expenditure.*

State Water/DIPNR are moving to a commercial environment and seeking commercial returns on capital. Those returns must reflect value for money services provided to customers (who should be driving the costs that are incurred). This puts pressure on service providers to ensure that capital expenditure is sufficiently beneficial to customers to justify the financial charges.

In this context, the quality of past capex by SW/DIPNR does not engender confidence. For example, who should bear the costs of fish passages in the Murrumbidgee that have not worked? The Blowering Dam was only completed in the 1960s, yet we are now told that it is unsafe. Also, Murrumbidgee Irrigation has argued without success against capex for unnecessary weirs in the past (in places such as Yanco Creek). All of these problems seem likely to remain.

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The direction of past capex is also uninspiring for customers. SW acknowledges (pp 55 of 89 of its submission to IPART in 2005) that its current renewals and rehabilitation program results from 'a material level of deterioration of water infrastructure resulting from inadequate maintenance over a long period of time'. SW's own State wide data for 2003-04 suggests that almost 50% of its actual capex was part of the renewals and rehabilitation program. In the Murrumbidgee Valley that figure was closer to 62%. Yet private paying customers effectively met all of those costs, and provided surpluses (see table 1 and table 2).

SW's current submission does not signal any significant changes in terms of its responsiveness to the needs of customers and stakeholders. For example, SW does not indicate any capex in water saving projects nor feel the need to discuss the issue in its submission. This is surprising given that: customers are experiencing one of the worst droughts in recorded history, there is wide acknowledgment that structural demand for water exceeds supply, and there has been a basin wide attempt by authorities to find more water for the environment. The silence about water saving projects may reflect 'hearsay' that the Government is keeping all water savings. But if that is the case the State Water submission should show how water saving projects fit with its capex program and how the relevant costs are excluded from its charges to customers.

Table 2 shows key aspects of SW Capex from 2002-2004 based on its 2005 submission to IPART. The 'user' share of capex for 2002 is estimated using the ratios in 2003 and 2004.

Table 2:
State Water CAPEX and financing 2002-2004

	2002	2003	2004
1. Estimated capex (\$m)	24.0	28.5	33.9
2. Actual capex (\$m)	13.1	15.6	20.1
3. % variation	-45%	-45%	-41%
4. 'User' share of capex (\$m) (a)	4.9	6.3	7.1
5. 'User' share of annuity (\$m) (b)	7.4	7.4	7.4
6. Annuity less 'user' share of capex (\$m)	2.4	1.0	0.2
7. Implied government share of annuity (\$m)	5.8	8.3	11.2
8. Expected Government share of annuity (\$m) (b)	11.2	11.2	11.2
9. Government saving of annuity (\$m)	5.4	2.9	0.0
10. Above annuity capex shifted to future (\$m) (c)	5.5	10.0	13.8

(a) Applying current (2001) IPART cost shares to actual capex.

(b) From current (2001) IPART determination.

(c) This capex was expected to be financed by owner's (Government) equity.

The data shows:

- Capex has been systematically lower than budget (by over 40% per year), lines 1 to 3.
- If cost shares are applied to actual Capex the 'user' share of Capex (line 4) is very low.
- The 'user' share of the annuity (line 5) exceeded the 'user' share of costs in actual Capex (line 4) by over \$3.5m since 2001, line 6.
- The government share of the annuity (line 7 (2-5)) was lower than expected (line 8), and it saved about \$8.3m from commitments for 2001-04 (line 9).
- Government funded capex, above the annuity, that was budgeted for 2001-04 but 'saved' was about \$30m (line 10). Based on the SW submission in 2005 this capex appears to have been shifted to the future.

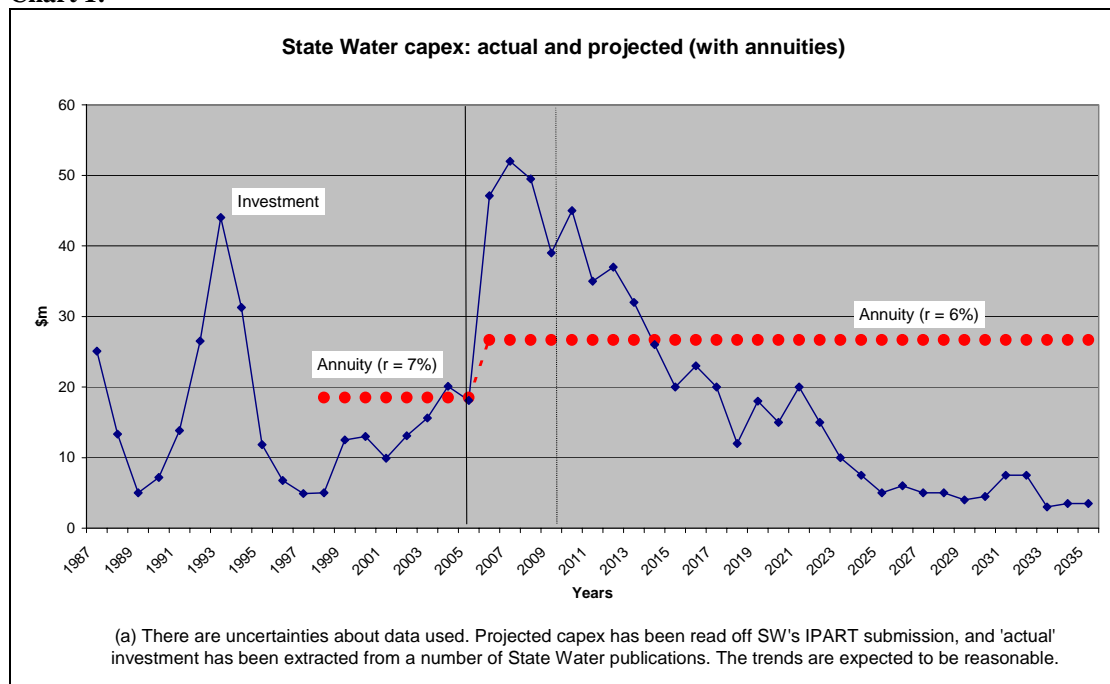
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Critical issues are:

- Low levels of actual capex relative to Budget is a concern when SW has strong financial incentives to front end load its capex plans (as the annuity or capital charges are based on the SW TAMP and increase with front-end loading).
- Cost sharing arrangements agreed under IPART's last determination have not been adhered to, and CSO payments have not been made.
- Actual outcomes over the longer term seem to be more moderate than is suggested by the SW TAMP over the next decade (see Chart 1). Based on the SW's TAMP data, capex in the next five years is expected to almost double the previous capex spike in the early 1990s, and in the next seven years will exceed capex for the previous 19 years. This seems odd in light of community concerns about past over-investment. It also casts doubt on actual capex in future relative to the TAMP.
- The potential for actual capex to be lower than the annuity was envisaged in the annuity approach. What was not envisaged was Government's savings of over \$8m relative to its annuity obligations. CSO obligations have not been met. Also, the \$30m savings relative to budget expectations at the end of 2004 should be shifted into the future if the corresponding capex has been shifted into the future. Acceptance of such an obligation by the Government would probably go a long way to resolving SW's cash management issues (which seem to be a major concern to SW, based on its submission).

Chart 1:



Customers have major trust gaps with the Government service providers (SW and DIPNR) regarding capex. An important mechanism to close these gaps is the community consultation requirements when undertaking capex. But, generally, SW/DIPNR do not adequately consult with local stakeholders when implementing major projects or activities.

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The prudence and efficiency of SW's actual Capex should be subject to performance audit and review by stakeholders. This should not be costly, and may just require better consultation/liaison with major stakeholder groups in each Valley.

- *The projected capital expenditure program outlined in State Water's submission, and the outcomes that it is expected to achieve*

The projected capital expenditure program is a line item budget against general product codes. It does not tell individual Valleys what to expect in terms of capex projects or outcomes. For instance, about half of the total capex expected in the Murrumbidgee from 2006-08 (\$30m) is allocated to 'river structure development to service/enhance growth'. Sounds good, but what does it mean? What structures are to be put in place and where? This highlights the need for SW to be more formally based in each Valley, and to consult better with stakeholders. For example, Murrumbidgee Irrigation (a member of the Customer Service Committee (CSC)) is unaware of the content of the Murrumbidgee TAMP. The following points are also of concern:

- Projected capex is very high and very front-end loaded. Actual capex shown in Chart 1 for the last two decades is not consistent with the volume or shape of projected capex in SW's TAMP. This suggests that the TAMP is not a good indicator of annual capital costs in the near term.
- The \$30m Murrumbidgee Valley capex program for 2006-08 is excessive relative to needs. It is rumoured to contain capex on a weir in Yanco Creek that Murrumbidgee Irrigation does not support, and upgrading of Berembed Weir (which Murrumbidgee Irrigation suggests may not be needed for many years – possibly decades).
- Are opportunities to smooth capex, and save costs, being ignored in the SW budget process? The lower than expected capex over the last decade does not appear to have compromised the business. SW argues that community consultation and negotiation delayed capex during the last determination period. It also refers to its success in addressing OH&S compliance on legacy assets at considerably less than anticipated costs (see p32 section 3.3.3 of SW submission). Such outcomes and opportunities need to be built into capex planning and pricing.

For the above reasons, the capex estimates in SW's TAMP should not be used to alter pricing for the purpose of capital cost recovery, as is suggested by SW in its submission.

- If changes to the annuity calculations are considered, there is a strong case for greater use of historical actual data. For example, the annuity could be calculated on a rolling basis using, say, 20 years actual data plus (revised) 30 year forward projections.
- There is no acknowledgment about society's need for water savings in SW's submission, and the absence of water savings projects in a capex program of \$148m over 3 years.
- The lack of adequate justification for including projects in the TAMP. Capex projects should only be included in the TAMP and implemented if there is a clear need with cost/benefit analysis (and supporting risk management assessments) that shows that all reasonable alternative options have been considered.
- Beyond the current trust gap between State Water/DIPNR and its paying customer base, a sharp increase in SW's asset base (with the exception of water saving assets) would seem inconsistent with society's concerns about past 'over-investment' in rural water supply systems.

Funding by State Water

The Tribunal welcomes comments on:

- *What approach to funding capital expenditure should be adopted when pricing water services to ensure that capital expenditure requirements can be met?*

The first part of any financing strategy is to optimise timing of capex for a range of variables, including cash management (eg, identify potential for smoothing capex). Murrumbidgee Irrigation's experience in managing water delivery infrastructure is that the very long-term nature of the capital base enables flexibility in managing annual capex (without compromising services). This should be reflected in capex planning strategies and capital pricing. It may involve trade-offs, but given the low level of capex over the last eight years relative to budget it would seem that such trade-offs are being made for actual capex. There seems no reason therefore why they could not be accommodated in forward planning.

The advantage of the annuity is that it imposes a budget constraint to help guard against 'bad' or over- investment. The main shortcoming is that it is based on budget data as opposed to real outcomes, and this can lead to inefficiencies (game-playing and high associated transaction costs) as well as inter-generational inequities. The budget constraint may also lead to over-focus on cash management and result in sustained 'under-investment' by State Water.

The problem associated with other financing methods (rate of return, and amortisation) is that there is a guaranteed annual rate of return on capex. Unless there is proper consultation this would not protect customers against 'over' or 'bad' investments. The SW proposal of a starting RAB of \$300m and a capex program of \$148m over the next 3 years means the RAB would increase to about \$438m, and annual costs (and price pressures) would increase by about \$9.7m (\$1.4m in depreciation and \$8.3m in the required rate of return). With constant water access and use, this converts to a measure of the price path. The potential for a steep and very high price path under the RAB over the next 30 years is shown in Chart 2 (overleaf). Amortisation provides very similar outcomes for the same starting level.

Charts 2 and 3 (overleaf) show that the balance of risks lie very much with paying customers. Chart 2 shows the RAB of \$300m delivers prices that are initially lower than for SW's proposed annuity but increase rapidly to be much higher than the annuity (within one price determination period). This eventually unwinds such that the rates of return are equalised over 100 year asset lives. But the risks associated with front end loading, price instability, and unsound capex fall heavily on customers.

These risks change, however, with the actual capex profile. Chart 3 shows outcomes if SW's actual capex remains at the yearly average for the 30 year TAMP (about \$19m). Under this scenario the annuity option is the most expensive for SW's customers, at least for the next few years. The RAB approach would see revenue rise above the annuity but not until year 6. But if the annuity method is used and capital budgets are allowed to alter the annuity level, then SW could produce a capital budget that justifies a higher annuity prior to year 6 (as they have requested in their current submission). Under that scenario the annuity may ratchet up along a similar path to the RAB – with no protection for customers against 'actual' under-investment by SW and/or effective changes to agreed cost sharing.

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Chart 2:

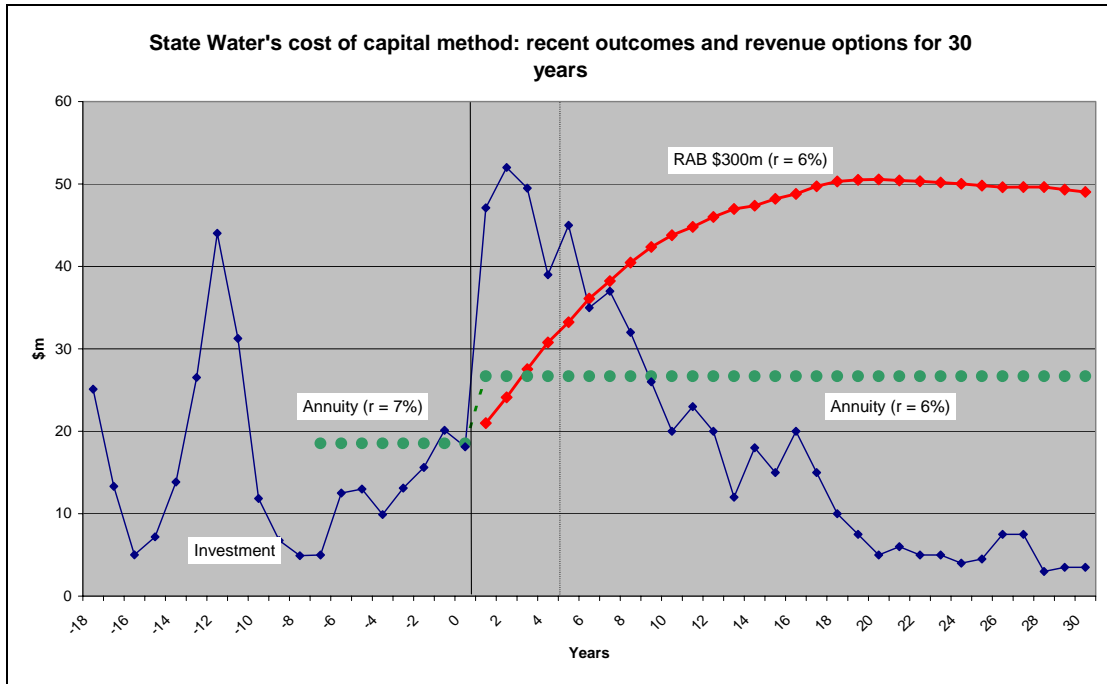
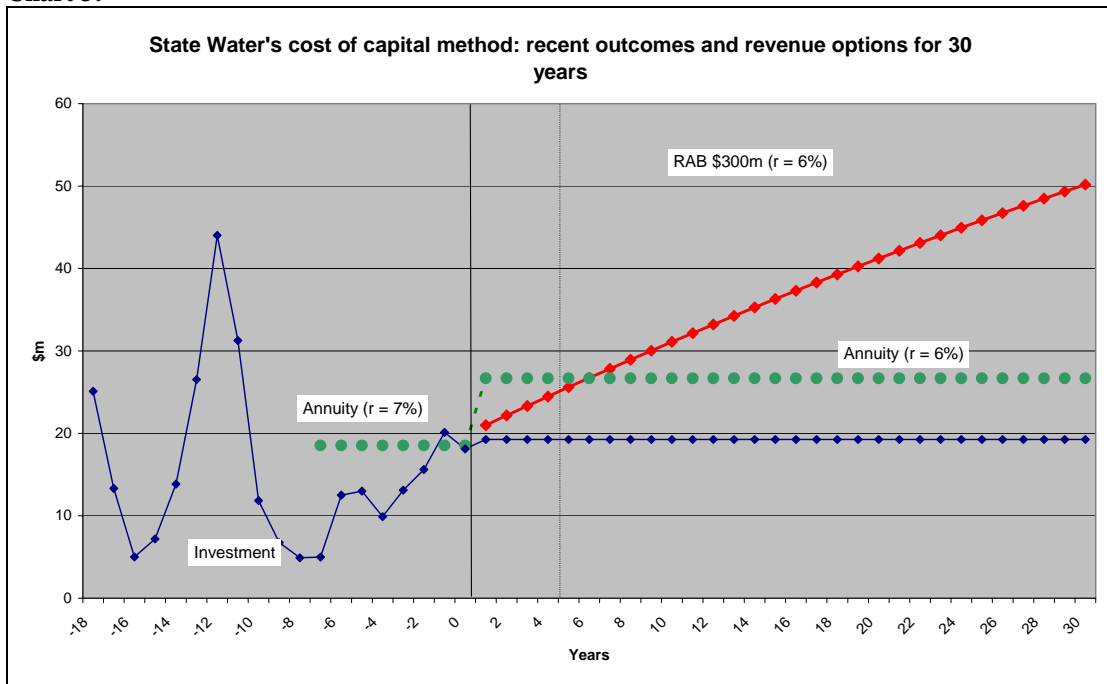


Chart 3:



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We need a method that delivers reasonable risk sharing between SW and its customers over the short, medium, and long terms. There are several options that enable alternative risk sharing and incentives for SW and customers. Examples include:

- (1) Enabling a return of deprival value (depreciation of deprival value) as at the start of the period with returns on assets in excess of the starting level of deprival value. The deprival value being a better estimate of the value of services embedded in the asset base than, say, a MEERA value of assets.
- (2) Some combination of annuity and RAB that provides a mix of both sets of incentives. For example, the current annuity could remain and annual capex above the annuity (owner's capital financing) could become part of the RAB, and below the annuity (negative capital financing by the owner) would come off the RAB. This approach recognises that a full return on capital (at 7%) is reflected in the current annuity and the 'unders' and 'overs' simply assist State Water with cash management.

Murrumbidgee Irrigation supports a continuation of the annuity approach, at current annuity levels, with provision for State Water to accumulate or run down an RAB to the extent that annual capex differs from the annuity. Because capex that is higher than the annuity should have strong financial returns there must be reasonable certainty about the embedded value of services to paying customers. The capex should therefore only be undertaken with the formal approval of customers, especially paying customers.

Murrumbidgee Irrigation has other concerns about capital financing issues within the current (and past) institutional setting.

First, whatever method is chosen, the Capex program over the last three years must be better accounted. Actual outcomes are much more important than budget estimates for capex and pricing of bulk water supply. Budgeted and actual costs clearly diverge substantially in aggregate, and in direction (thereby altering estimates of efficient costs and shares of efficient costs). The transaction costs involved in comprehensive analysis of budget data, and then using those estimates to allocate costs and prices, are difficult to justify in a commercial environment. Also, the real value of agreements based on budget shares is questionable. The current licence states that State Water will get CSCs to approve all asset programs, but most of the existing planned projects have not been approved by the CSC in the Murrumbidgee. In any case, it does not seem to be efficient or fair to set and change cost shares on the basis of budgeted line items. What protection do customers have even if budget shares are agreed?

Second, actual data must be presented on a Valley basis, including – and especially – the data used to support estimates of any RAB. (It should be noted that the State Water submission estimates of a \$300m RAB and a \$48.7m estimate of the Murrumbidgee RAB seem to be plucked from the ether.)

Third, the transactions for sharing capital (and opex) costs between private paying customers and government must be transparent. State Water (and DIPNR) must show all customers that these agreements have been adhered to prior to the next determination, and what happened to any surpluses (if they arise). CSO obligations must be actually met.

Finally, it would assist State Water's cash management, and increase trust relationships with customers, if the Government (in its ownership role) were to agree a policy for retained earnings that enabled sound levels of capex. If SW capex exceeds the annuity for a period

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there will be balance sheet pressure, but as long as the annuity exceeds depreciation there will scope for dividend distributions (assuming interest expenses are nil or very low). The object would be to ensure that retained earnings be sufficient to enable any desirable expansion of assets (which as noted above should not be too extreme). This dividend policy would perform the same function as accumulating an RAB based on the annual 'unders' and 'overs' of capex relative to the annuity.

- *An appropriate rate of return for State Water.*

The return of 6% suggested by State Water seems sensible if it is consistent with similar public sector corporate service providers and reasonable risk sharing. But, it should be noted that a starting RAB of \$300m means that State Water's capex program will deliver an effective rate of return on capex that is closer to 15% than to 6%. If the RAB methodology enables the owner (Government) to effectively extract returns in the range of 6% to 15% whatever happens (ie, shift all capex risks to paying customers), then the proposed rate of return is extraordinarily high. Risk free rates of return are normally closer to 3% than 6%-15%.

As long as the risk sharing framework for capex and capital charges protects the rights and reflects responsibilities of government and paying customers, the rate of return should not be a cause of inappropriate distribution of costs between stakeholders.

4.2.1 Operating Expenditure

The Tribunal welcomes comments on:

- *Whether there is a connection between the provision and use of water services and the WRM activities usually undertaken by DIPNR, and if so, the strength of this connection*

The demand for water by paying customers is clearly an important driver for WRM services. The critical issues are: whether the WRM services are to water users or to governance (to the Minister or government); whether the level of costs is "efficient"; and whether there is an appropriate balance being struck between paying and non-paying customers in sharing the costs of WRM services to users. DIPNR's submission does not enable clear answers to these questions. However, Murrumbidgee Irrigation would make the following observations:

- The roles and responsibilities of DIPNR and State Water need to be put on a sound footing and clarified. Ideally, DIPNR should become the over-arching governance agency with prime responsibility to establish and maintain the legislative and regulatory property rights and responsibilities, and to provide policy advice to enable good governance of rural water supply. These functions fall mainly within the area of Government business. The services are demanded mainly by the Minister, other Departments, and Cabinet for the purpose of assuring people that natural resources are well governed. These services are generally financed by taxation. As the governing agency DIPNR should set policies, establish property rights and responsibilities, establish regulations governing water access and use (perhaps with the assistance of other government agencies), and monitor and report against outcomes. As the governing agency it can request appropriate information from service providers and industry participants sufficient to enable it to fulfil its obligations to its clients (Minister etc). State Water should be the service provider for rural water, be responsible for delivery of the property rights set out by DIPNR, and for corresponding

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WRM services. State Water would have to report to DIPNR in terms of actual relative to expected outcomes. (See appendix 1.)

- On this basis, all WRM activities that are not demanded by the Minister or other Government representatives should be transferred to State Water. These costs could be defined by Ministerial decision. That is, the Minister would retain all DIPNR personnel, equipment, assets etc required to perform the role of Governance. The remainder could be transferred to State Water. This would not leave any WRM expenses relevant to water users in DIPNR. If DIPNR had specific cost recovery needs (such as transaction costs associated with licensing and dealing in licenses) they could be dealt with directly, separate from bulk water pricing. DIPNR WRM costs applicable to paying customers would likely be zero.
- The services transferred to State Water are likely to include: management of storage services and associated environmental impacts and objectives in catchment areas, management of water delivery services and associated environmental impacts and objectives in river systems (including connected wetlands and other natural assets), and management of flood and drought control, environmental projects, recreation, tourism and other water supply services and associated environmental impacts within storages and rivers. Carrying out these functions would require SW to generate appropriate information and analytical services, and the capability to report – as required – to DIPNR.
- This approach would make establishment of the efficient costs of WRM much easier and avoid potential problems of duplication and unnecessary coordination costs between DIPNR and SW.
- In State Water's hands, there needs to be recognition that WRM services are provided to a range of customers including: flood control, drought management, land and environment, agriculture, forestry and fisheries, urban development, tourism, recreation, industrial development and so on. It is important that these alternate demands for WRM are incorporated in any analysis of cost drivers. In effect, we need to ask the question what would WRM costs be without private paying customers? These are likely to be quite substantial given the current demands of society for sound natural resource management and reporting.
- Beyond the basic level of WRM costs we need to establish the role of water extraction and use in driving WRM costs. What is the relationship between the level of licenced water access and WRM costs? Comparative analysis across Valleys might help to identify such relationships.
- It should also be clear that WRM services are being provided to customers in the Valley that is being charged for the services. If there are millions spent on WRM in Sydney, the expenditure is likely to have more to do with policy and regulatory activities than with WRM (relevant to water use within Valleys). Likewise inter-valley transfer of WRM revenue should not be allowed. WRM should be strongly connected to specific outcomes for all stakeholders in the region that foots the bill or where costs are being mitigated. Where the services are to non-paying customers (eg, stock and domestic, recreation, or environmental services), it is just as important to ensure that the expenditure is seen to deliver the services to the locations specified. If surpluses are generated, they should be retained and applied for the benefit of the valley that paid.

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- *the efficient costs of providing WRM services*

The efficiency of DIPNR's WRM services cannot be determined without analysis of DIPNR's financial data and performance. The following comments are submitted:

- It seems less likely that efficiency will be maximised if, as the regulatory and licencing agency, DIPNR retains the WRM service delivery function. At an operational level, cost effective delivery of WRM services often requires integration with operational storage and delivery services, including: data collection and management, activities to rectify problems associated with extraction, and activities to manage the health of catchment areas. These functions would be more efficiently carried out by State Water, with DIPNR providing governance functions (services to the general public).
- The same issues regarding the use of budget estimates and actual costs referred to above apply to WRM costs (capital or operating). In the last determination total WRM costs for the Murrumbidgee Valley were budgeted to be \$6.151m. The estimated costs in 2003-04 were reported by DIPNR to be \$4.545m. A difference of 26%. In these circumstances what are the efficient costs? More than likely the actual costs rather than budget costs. That said, according to DIPNR data in its submission to IPART state-wide 'indicative' actual WRM costs are very close to budget levels agreed in the last determination. This means that revenue raised in the Murrumbidgee must have been used to meet costs in other valleys.
- There are probably some reasonable benchmarks for WRM services relative to, say, operating or total costs. For example, similar services in Murrumbidgee Irrigation seem to be quite stable at about 15% of total costs. There may be conditions that justify a higher benchmark but these need to be argued by SW (or less preferably by DIPNR).
- In the absence of transparent and appropriate institutional arrangements and a comprehensive analysis of WRM cost drivers the current estimate of efficient WRM costs and the sharing of WRM costs should not be changed in nominal terms. However, there should be incentives placed on DIPNR to pursue efficiencies. To that end Murrumbidgee Irrigation supports the annual transfer of an efficiency dividend from DIPNR to State Water. The dividend to be retained by State Water for financing WRM activities for each Valley that are agreed with paying customers and other key stakeholders in each Valley.

- *the role of the CMAs in relation to WRM services*

The CMAs could play a coordinating role in the audit/review of WRM service provision within relevant Valleys. This could apply to Capex programs and operating expenses, as well as WRM activities. At present CMAs appear to be conform to the characteristics of a governance presence in each Valley, although there is scope for this to evolve over time.

- *DIPNR's proposal to set WRM prices from 1 July 2005 to 30 June 2006 based on the current prices plus a CPI increase*

Murrumbidgee Irrigation would prefer that WRM activities be transferred to State Water (see above). If that is not possible the following comments are relevant:

- The CPI adjustment proposal seems to have been made to enable DIPNR to do what it should do automatically in a commercial cost recovery framework. That is to provide information that instils confidence in customers that WRM charges are well founded. In this context CPI adjustment would seem to be a dividend for inefficiency.

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- There is a need to ensure that any WRM expenses that have been transferred to State Water are excluded from DIPNR's projections. Unfortunately that is impossible to determine based on current submissions.
- Until there is clarity and transparency WRM costs should be maintained at current levels and shares in nominal terms. Current prices based on WRM should not be altered.
- Simple adjustment for CPI approaches to costing should – generally – become a thing of the past if we are striving for efficiency within commercial relationships between service providers and paying clients. The use of rural bulk water is subject to very cyclical changes in resource availability. The service provider must therefore be able to respond to changing conditions in the marketplace, and this should involve a measure of cost-sharing in the 'bad' times, and benefit sharing when times are good. As noted earlier, it would be interesting to compare the changes in wages, employment, and costs of State Water and DIPNR over the last few years relative to those of private irrigation supply companies.

5. ALLOCATING EFFICIENT COSTS BETWEEN USERS AND THE COMMUNITY

5.2 Proposed approach for the determination

The Tribunal welcomes comments on:

- *Whether there are new arguments against the cost sharing approach used for the last determination*

All customers (not just paying customers) should meet the costs of institutional reform, as all stakeholders are both driving the reforms and reaping the benefits. At the same time, all stakeholders need to share in any efficiency gains/benefits. If the Government is retaining water savings benefits then equity considerations would demand that any water saving projects and activities by State Water be identified and excluded from customer costs.

State Water argues for changes in the cost shares, and always in the direction of imposing additional costs on paying private customers. Also, adherence to agreed cost shares (between paying customers and CSOs, and between valleys) in actual outcomes is extremely poor.

- The cost shares for budgeted opex proposed by SW – almost 100% to be met by paying customers by 2006 - seem to imply that non-paying customers (environment, flood control, drought management, recreation, transport, fishing, tourism) will no longer receive services from State Water. SW's services would only be of value to paying customers. This seems odd, and may not be welcome news to other stakeholders.
- More accountability is required to avoid cross subsidisation between valleys (in terms of the incidence of 'actual' costs relative to budget items and therefore prices).
- The 'user' share of opex in the current determination was set at \$23.024m. Actual opex in 2003 and 2004 averaged \$21.569m - an opex recovery of 107%. Keeping current shares where they are, and given the very real chance that SW's actual costs will be well below budgeted costs (as in the last determination period) means that private paying customers are likely to generate revenue above actual costs (ie, greater than 100% cost recovery). This sort of outcome makes arguments about cost shares in budgets, and associated transaction costs (eg, consulting expenses) seem futile.

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- It would make more sense for users to accept 100% of the cost recovery burden and cap the growth path for actual opex over each determination period. A base of \$21.569m adjusted for the CPI less a 1% per year efficiency target would not seem unreasonable.
- If the negotiation of shares in opex budgets is retained - a simpler approach is warranted. As noted earlier many of the services provided have multiple targets (such as users, the environment, recreation, drought and flood control etc) and these targets often need to be integrated at the point of service provision. This combined with the ease that budget items can be altered suggests that wide ranging cost shares for budget items should not be common unless there is a clear basis for deviation from a 'standard' share. For example billing and metering. Negotiations about shares could focus more on actual expenditures, and should be more stable over time (see also section 6.2).

Table 3: Comparison of opex shares for Murrumbidgee Valley in 2006

Sub product	Description	IPART payer (a) shares current	SW payer shares proposed	M'gee payer shares proposed	Budget expense \$,000 2006	IPART payers \$,000 2006	SW payers \$,000 2006	M'gee payers \$,000 2006
PA100	Surface Water Qty data collection	70%	100%	67%	947	663	947	634
PA120	Surface Water Qty data collection	50%	100%	67%	0	0	0	0
PA130	Quality data management	50%	50%	67%	0	0	0	0
PB230	Surface water licence surveillance	100%	100%	100%	0	0	0	0
PC100	State river op. policy and plans	100%	100%	67%	4	4	4	3
PC102	Customer & industry liaison	100%	100%	67%	71	71	71	48
PC120	Annual river operations planning	100%	100%	67%	18	18	18	12
PC200	Reg river operations	100%	100%	67%	1019	1,019	1,019	683
PC220	Reg billing	100%	100%	100%	49	49	49	49
PC221	Reg metering	100%	100%	100%	713	713	713	713
PC300	Flood airspace policy	50%	50%	67%	0	0	0	0
PC310	Flood operation plans	100%	100%	67%	6	6	6	4
PC405	Dam safety emergency plans	100%	100%	67%	0	0	0	0
PC408	Infrastructure insurance	100%	100%	67%	338	338	338	226
PC410	Rural water infrastructure maintenance	100%	100%	67%	0	0	0	0
PC412	Storage maintenance audit	100%	100%	67%	5	5	5	3
PC413	Maintenance of land & buildings	100%	100%	67%	303	303	303	203
PC414	Mnt/ops rec & no water supply facilities	0%	0%	0%	0	0	0	0
PC416	Maintenance of dam works	100%	100%	67%	666	666	666	446
PC417	River structure maintenance	100%	100%	67%	1228	1,228	1,228	823
PC419	River channels & bank maintenance	75%	75%	67%	0	0	0	0
PC420	Water infrastructure surveillance	100%	100%	67%	129	129	129	86
PC421	Storage surveillance data collection etc	100%	100%	67%	567	567	567	380
PC423	Reg, rereg, oth structure surveill. data coll	100%	100%	67%	22	22	22	15
Total costs					\$6,085	\$5,801	\$6,085	\$4,328
% private payers share in total costs						95%	100%	71%
Implied CSO (government payments)						\$284	\$0	\$1,757

(a) Payers are paying customers
Source: State Water IPART submission 2005.

- Table 3 shows a suggested approach that aims to reflect a more 'standard' cost share with provision for clear deviations from the standard. The basic 'standard' cost share between paying customers and all other users is set at 67%. The major deviations are for billing, metering, and licence surveillance which are set at 100%. (Although many current users are not metered and are non-paying).
- Similar arguments can (and should) be applied to allocating capital cost shares. The current approach shares budget figures rather than actual costs, the negotiation costs are very high, and it is too easy for shares to be altered along with budget allocation when capex takes place.
- The aggregate 'user' share in the current IPART determination of 45% of total costs would be appropriate for a standard share of capital costs. Deviations would be negotiable on a case by case basis. If there is adequate consultation prior to actual capex such deviations

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could be agreed before actual capex. The only current deviation recommended by Murrumbidgee Irrigation would be for dam compliance upgrades which should be funded 100% by Government as legacy costs, and rehabilitation and refurbishment needed to offset past inadequate maintenance which should be 80% government funded. (See table 4.) This approach would help to stabilise cost sharing (see comments in section 6.2).

Table 4: Comparison of capex shares for Murrumbidgee Valley in 2007

Sub product	Description	IPART payer (a) shares current	SW payer shares proposed	M'gee payer shares proposed	Budget capex \$,000 2007	IPART payers \$,000 2007	SW payers \$,000 2007	M'gee payers \$,000 2007
PC400	Rural water infrastructure policy & planning	100%	100%	45%	0	0	0	0
PC402	Asset management plans, standards & audit	100%	100%	45%	284.3	284	284	128
PC404	Hydro power station development	0%	0%	0%	0	0	0	0
PC415	Other non-IPART Dam rehab & refurbishment	0%	0%	0%	270	0	0	0
PC430	Water infrastructure rehab & development	20%	20%	20%	0	0	0	0
PC431	Dam rehab & refurbishment	20%	20%	20%	0	0	0	0
PC432	Dam major periodic maintenance	100%	100%	45%	634.5	635	635	286
PC434	Dam development - service enhance/growth	100%	100%	45%	5	5	5	2
PC435	River structure rehab & refurbishment	20%	20%	20%	407	81	81	81
PC436	River structures major periodic maintenance	100%	100%	45%	52.6	53	53	24
PC437	River structures develop - regulatory compliance	100%	100%	45%	0	0	0	0
PC438	River structures develop - service/enhance growth	100%	100%	45%	8200	8,200	8,200	3,690
PC450	Dam compliance - environment	50%	50%	45%	0	0	0	0
PC451	Dam compliance OH&S	50%	100%	45%	0	0	0	0
PC452	Reg river compliance - environment	50%	50%	45%	850	425	425	383
PC453	Reg river compliance - OH&S	50%	100%	45%	0	0	0	0
PC456	Dam compliance - upgrade	0%	0%	0%	235	0	0	0
PC500	Decommissioning	0%	0%	0%	1.5	0	0	0
Total costs					10,940	9,683	9,683	4,593
% private payers share in total costs						89%	89%	42%
Implied CSO (government share)						1,257	1,257	6,347

(a) Payers are paying customers

Source: State Water IPART submission 2005.

- *What costs should be considered as “legacy costs”*

Almost all costs could be regarded as legacy costs in rural water supply because the initial decision to invest in infrastructure is a major driver of subsequent costs in terms of planning, maintenance, rehabilitation etc. From that point of view it is likely that a legacy based cost framework will not ease arguments about cost shares – or allegations that paying customers are being subsidised. For example, the SW view that OH&S standards are a “normal cost of business” flies in the face of ‘legacy’, and could potentially be applied to many cost centres.

The principle of ‘legacy’ is, however, extremely important in that it acknowledges that governments have in the past, and are likely to do so again, made investments on behalf of society that are not the most commercially viable or least cost for a given set of paying customers. This can be due to many reasons, ranging from bad investments to perceptions of high benefits for non-paying customers (eg, recreation, flood and drought mitigation services). In the case of infrastructure in rural water supply there are examples of bad investment and ‘gold plating’ but non-commercial benefits and non-paying beneficiaries have also ‘driven’ capex. Unfortunately, service providers on the road to ‘full cost recovery’ are largely ignoring these drivers and reasons for investing in the first place.

SW’s objective of cost recovery for the Peel Valley is a good example. The Government completed Chaffey Dam in 1979 at a replacement value of \$72.5m (in 1996\$) (excluding the value of associated works). The total entitlement in the Valley is 48 GL. It could not have gone unknown in 1979 that the dam and associated works were uneconomic on a paying customer base of 48 GL. There had to be other reasons for the capex. Perhaps they are as explained on the Northern NSW Region website which says “Its (Chaffey Dam’s) prime purpose is to regulate the flow of the Peel River and to augment water supply to the city of Tamworth. It also

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provides facilities for water sport such as sailing and skiing and fishing and swimming." Agricultural water use does not rate a mention. Yet we see SW pursuing a strategy of full (ultimately high bound) cost recovery from paying customers.

The same principles should apply to the Coastal region where \$348m has been invested to serve 106 customers with 23 GL of entitlement (p42 of 89). But here we see SW arguing that the Coastal Valleys don't have a "sufficient customer base to achieve cost-recovery without a large increase in water prices....and (recovery will not be possible) until the ability to pay improves significantly through new production opportunities." This approach implicitly recognises either over-investment and/or alternative cost drivers (to paying customers).

Like situations arise in every regulated river system. The true test of the relative values (and hence cost shares) for stakeholders in regulated rivers lies in answering the question of what costs are being saved due to the regulation? Sometimes these are difficult to value but we can get a feel by at least investigating the possibilities. Examples include:

- Irrigation. Without regulation all irrigation licences would become unregulated access (ie, access water when its there). Security of access would require large scale investment in off-river supply storages, and probably on-farm storages by irrigators.
- Flood management. Decommissioning would result in increased government disaster management expenses, and private costs (urban and rural) due to flood damage. The costs involved in reducing impacts (eg, asset relocation) are likely to be substantial.
- Drought management. Australian rivers dry up in severe droughts. What are the costs saved by ensuring that there is regular water flow in rivers? How much would concerned stakeholders have to spend to ensure that they have the required amount of flow? Urban centres throughout the basin – including cities such as Adelaide - would need to obtain water security just to sustain life. Fisheries, boating, skiing, swimming, diving, tourism, hydro-energy, and industrial activities would probably need to invest large amounts to avoid the costs of low or zero river flow.
- Environmental management. Natural conditions of creation and destruction may not sit well with society. Forests and habitats would flourish and die-off as determined by the climate. Salinity was a problem before European settlement, as was blue-green algae. Neither are likely to disappear because of decommissioning. What would people be prepared to pay to ensure that these 'bads' imposed by nature are mitigated?

All of the above can be expected to be very expensive for the stakeholders concerned. It would not be surprising to find that the sum of the benefits (and costs mitigated) derived from river regulation exceeds the costs of infrastructure and operations. In this context, it would be interesting to see the cost benefit assessments that were undertaken to justify regulation in the first place, or conduct them if they do not exist. It is recognised that this may be quite expensive and time consuming – and may not resolve much in the current fragmented climate in rural water supply.

In the meantime, it would seem more efficient and – perhaps – fairer to agree simple, reasonable aggregate cost sharing arrangements (as shown in the previous section). The standard 'user' share for opex of 67% reflects the relatively higher opex service demands by paying customers. The 45% user share of capex reflects the service shares, the potential for over-investment to have occurred in the past, and the need to mitigate potential for future over-investment by sharing risks appropriately between the owner and paying customers.

- *What cost sharing arrangement should apply to compliance-related capital expenditure?*

Compliance related expenditure would be a normal business cost if the business is participating in a competitive or contestable market, and the governance of standards is completely independent of the business. Without these conditions, there needs to be some protection for customers.

If the cost sharing arrangements involve identifying cost drivers by State Water's product codes then compliance related expenditure would be ranked as requiring a very low cost share for paying customers. The major cost drivers being past capex and the business owner/operators (at a time when the commercial relationship between providers and customers is embryonic, to say the least).

If the cost sharing arrangements start with acknowledgment of the multi-purpose cost drivers for river regulation, and investment incentives, accountabilities, and risk sharing are reasonable, then compliance related expenditure could and should be shared on an agreed general sharing arrangement, say 45/65 between paying customers and CSOs (government).

- *Whether there is a connection between water extraction and the various WRM activities, and the extent of this connection*

Again the cost sharing arrangements used will determine positions. At face value in a SW/DIPNR product code negotiation situation, only those WRM activities clearly driven by paying customers should be included. Society would need to invest quite significantly in WRM if water is not extracted from rivers or simply accept the costs associated with natural flows. Making such assessments would be time consuming and expensive.

On the other hand, if there is acceptance that WRM is in the interests of everyone, and that paying customers impose the need for more WRM expenditure than non-paying customers, the cost share of about 62% for paying customers in the current IPART determination seems reasonable. The WRM would need to be based on actual costs and services to the valleys that meet the costs (see above).

6. SETTING PRICES

6.1 Determining appropriate price structure

6.1.1 Two-part tariff

Balance between fixed and usage charges

SW's proposal to recover 60% of revenue through fixed charges and 40% through use charges seems quite reasonable. Murrumbidgee Irrigation faces a similar cost structure of about 80% fixed costs, and its revenue reflects about 50% fixed and 50% use charges.

The request by SW to set prices using 1 standard deviation below the 100 year average is not supported. This will result in expanded profits and do little to combat the problem of revenue instability in drier years. Revenue instability is a cash management issue that needs to be

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addressed directly, and without imposing all the costs associated with that risk to one set of customers or stakeholder group.

There may also be a tendency to overstate the potential problems of cash management. First, unlike many of its paying customers, SW has managed to generate cash surpluses over the last three years during the worst drought since Federation. Second, if SW's annual operating costs are actually about \$22m, and total revenue is about \$48.5m as in the current determination (\$30m opex and \$18.5m annuity and depreciation) a recovery of 60% in fixed charges would mean revenue of \$29m. The minimum revenue on use based charges is likely to be over 20%, which would mean a further \$4m at least. That is, a cash surplus on actual opex of up to \$11m. State Water/DIPNR has had annual capex of less than \$11m in the past – without compromising the business. As long as it charges for CSO costs at the same time as paying customers it is difficult to see cash management as a major issue for the Corporation. Retention and sound management of operating surpluses is likely to be a bigger problem.

One option to mitigate cash management problems would be to make all annual CSO charges fixed. This may be justified because that customer base is separated from market conditions and the two part tariff does not impact their water access, use and saving decisions.

Reflecting WRM costs in the two-part tariff for regulated rivers

WRM activities should largely be shifted to State Water. The cost structure of these activities is probably similar to that of river operations (say, 80% fixed). It is a matter of policy, eg, the strength of water saving signals the government seeks, as to whether a 60/40 split for WRM is justified. In the current conditions of excess demand a 60/40 split for WRM charges would seem easy to justify. The CSO charges could be fixed (as outlined above).

Balance between high security and low security entitlement charges

The SW submission correctly identifies little justification for a large differential between High Security and General Security entitlement charges in the Murrumbidgee Valley. First, system losses are not currently costed (anywhere) so there is little reason to suddenly recognise such costs for high security in an isolated case (where losses are insignificant). Second, high security water is guaranteed under the Snowy Licence so there is no need to hold reserves for high security in NSW dams. Using SW's suggested methodology this means the difference in the allocation premium would be used. For the Murrumbidgee this figure should be 1.25 (95%/76%).

Introducing two-part tariffs in unregulated rivers

The Tribunal welcomes comments on:

- *The progress of converting to volumetric licences and applying the two part tariffs on unregulated rivers*

No comment.

- *How prices for extractive users on unregulated rivers should be set if volumetric licences have not been established and metering is not in place*

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These prices should be set in such a way as to minimise potential for cross subsidisation between unregulated users and other users. Establishment of volumetric licenses and metering should be a priority, especially given the focus of the National Water Initiative on water accounting.

- *The percentage of entitlement extractive users on unregulated rivers receive in an average year.*

Access by unregulated users must comply with the valley cap and not exceed 1993-94 levels of use adjusted for climatic conditions. Unmetered supplies should be subject to special arrangements – including monitoring of and rules for activation - to ensure there is no activation beyond the cap.

6.1.2 Discounts for wholesale irrigation customers

The Tribunal welcomes comments on:

- *Whether wholesale discounts are still appropriate*

The State Water submission is very confusing in relation to the discounts. Throughout the rest of the submission, and in the section on discounting SW argues that its costs are largely fixed. In a situation of fixed cost, the unit cost (and therefore price) must decline with increased demand. SW acknowledges this when it states that “the costs to supply a 10 ML order to a river pumper are the same as supplying 1,000 ML to a Corporation” (p38 of 89). If this was the basis for the discounts, it is likely that the discounts would be larger than they currently are. But the discount is not a return to scale of purchase. Rather, it is a return to the retailer (irrigation companies) for costs saved by the provider (SW) in being able to switch from retail to wholesale service provision for a given set of customers.

The question that State Water should be asking is what would its total costs be if it had to service an additional 3,000 Murrumbidgee Irrigation retail customers directly on the river. It seems to be arguing that aggregate costs would not change. That might be true if current costs of bulk water delivery included all costs (State Water costs plus private irrigation company costs). But that is not the case.

Murrumbidgee Irrigation currently provides retail services in the form of data collection, planning, licence surveillance, metering, billing, customer liaison, operations, WRM, and environmental services for about 3,000 customers. If these customers transferred entitlement to the river, those costs would be transferred to State Water. The costs are a significant component of Murrumbidgee Irrigation's total annual costs. If we allowed just \$8m (which is conservative), the move of 3,000 customers to the river would almost double current average costs and prices for bulk water (because aggregate entitlement and use would not change). Outcomes for Coleambally Irrigation would work in the same way. This suggests that the current discounts are, if anything, low, unless SW believes that it could provide these services much more efficiently than the irrigation corporations.

DIPNR recommend that, in future, fee for service arrangements should replace bulk water discounts. As noted earlier (section 4.1.1), Murrumbidgee Irrigation would be interested in any arrangements where there is potential for efficiency gains by increasing the contestability or

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competition of bulk water service provision. Such arrangements would need to be negotiated before any changes to discounting were made.

The discount should only be available to wholesale networks, unless State Water wishes to change the current basis of costing and pricing to comprehensively reflect returns to scale of entitlement and use. Wholesale networks that are currently not getting the discount or not getting sufficient discount (as implied by State Water in its submission) should be provided appropriate discounts in future.

- *If so, what level of discount for wholesale customers is appropriate?*

The current level of discounting probably does not fully offset the savings that the irrigation Companies enable for State Water. But customers are used to them and, without comprehensive analysis the discounts recognise the role of wholesalers in keeping SW retail costs down.

The wholesale discounts for irrigation Companies should remain at current levels unless there is a comprehensive review conducted by an independent agency in consultation with stakeholders.

In the interests of fairness, the question of whether loss allowances for wholesalers should be included in bulk water charges should be part of any review of the bulk discount.

6.2 Determining appropriate level and rate of change for prices

The current concerns for paying customers regarding the level of appropriate pricing and, therefore, the pathway to achieving that level is that the benchmark for cost recovery seems to be a moveable feast.

For example, according to the State Water submission Murrumbidgee Valley paying customers are at risk of going from a full cost recovery situation in 2004 (as per the last IPART determination) to a lower than full cost recovery situation in 2006 – unless there are significant increases in prices.

The main change seems to be allocations across budget product codes (for both opex and capex). This does not accord with 'user' expectations that as budget allocations with high government cost shares become less important then real and sustained savings would be made. That is, the costs applicable to 'users' would tend to be stable and not become a variable share of stable aggregate budget estimates.

There needs to be a clear statement of what cost recovery is in relation to real costs (as opposed to SW budget items). That cost recovery 'target' should be established for each valley and not change very much (except for major impacts such as efficiency gains, general price impacts, and technical changes). This would enable 'users' a sense of certainty that is not currently present.

Such a system would result in clear benchmarks for full cost recovery by Valley. Once this 'appropriate' level of price has been fairly established stakeholders would be able to know and agree on reasonable transition paths. (See also the discussion in section 5.2).

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Appendix 1: Proposed structure and broad financing of rural bulk water supply

