

MURRUMBIDGEE IRRIGATION

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Contact Name: John Chant
Our Reference:
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Michael Seery,
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Bulk Water Pricing,
Independent Pricing and Regulatory Tribunal of NSW
Sydney NSW 2000

Dear Michael,

I am pleased to attach Murrumbidgee Irrigation's initial submission for the IPART review of bulk water prices from 2006/07.

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. We are also likely to avail ourselves of the opportunity to make supplementary submissions as new information comes to hand.

In making this submission I would like to highlight our concerns about SWC and/or DNR use of the National Water Initiative (NWI) as a means of expressing monopoly power to extract price increases from paying customers for rural water supply. Aside from their consistent references to the NWI, the submissions from both organisations conform to previous ambit claims that they have put forward as part of the IPART process. In this context, I would urge that IPART take account of recent statements by the Parliamentary Secretary to the Prime Minister, Gary Nairn, that selective implementation of water reforms and unconstrained price increases were not seen as acceptable outcomes under the NWI.

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

John Chant,
Chief Executive

25 November 2005

COMMENTS ON SWC AND DNR SUBMISSIONS TO IPART ON
BULK WATER PRICES FROM 2006-07

Murrumbidgee Irrigation

24 November 2005

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1. ESTABLISHING EFFICIENT COSTS

1.1 *Operating expenditure of SWC*

The efficiency of the operating costs in SWC's submission

SWC's budgeted opex seems – as usual - to be an ambit claim. There is no historical cost data to make judgements about actual efficiency outcomes. Also, service levels to paying customers do not seem to have changed much in the Murrumbidgee Valley over the last decade. It would be hoped that the growth path of actual costs for paying customers has remained stable and efficiency has, at least, been maintained (see Appendix 1). MJA and Cardno MBK (2005)¹ also found significant discrepancies between SWC IPART submissions (high), IPART determinations (medium), and actual expenditure (low).

A major concern is that it is impossible to comment on the efficiency of operating costs without reference to comprehensive historical budgeted costs, actual financial outcomes, and actual outcomes for the relevant services provided by Valley. Projected opex should also enable ready comparison of past outcomes with future services and costs by Valley.

Recommendation 1: SWC should be required to provide this information as a matter of urgency.

Scope for SWC to achieve efficiency gains.

A major concern is that SWC often refer to additional cost requirements to implement the forthcoming water reform program. This is strange in light of the substantial reforms – acknowledged by SWC - that have been implemented over the last 5 years, during which time actual costs have not even reached cost levels approved in IPART determinations. The nature of reforms is usually high start up costs followed by – hopefully – lower ongoing recurrent costs. The resources released through successful implementation of one set of reforms should therefore be able to be directed to the subsequent reforms until the program is complete and permanent savings 'locked in'. There is no feel for such net benefit outcomes in the SWC submission.

Recommendation 2: SWC should be required to provide a cost benefit analysis of reforms within a simple framework that enables efficiencies to be identified.

There is significant potential for future efficiency gains. But the SWC submission to IPART suggests the objectives of efficient use of public funds and resources, and avoidance of extracting monopoly rents from consumers are not a priority for SWC. (See appendix 1.)

Recommendation 3: SWC should be required to provide information about past trends in simple efficiency and projections as a matter of urgency.

¹ Marsden Jacob Associates and Cardno MBK, Review of Capital Expenditure, Asset Management, and Operating Expenditure of State Water Corporation, A Report for IPART (2005).

1.2 Capital expenditure on long-lived assets

The prudence of State Water's past capital expenditure.

SWC does not provide historical data for the Murrumbidgee on its capex in terms of projects, budget, actual cost, or service related outcomes. Murrumbidgee Irrigation is not aware of the projects implemented recently, but has concerns about past projects eg, ineffective fish ladders, unnecessary weirs in Yanco Creek, and over-investment in structures on the lowbidgee.

Recommendation 4: SWC should be required to provide the above capex information to paying customers as a matter of urgency.

Recommendation 5: The prudence and efficiency of SWC's actual Capex should be subject to performance audit and review by Valley stakeholders, especially those customers that have been charged for the relevant budget item.

The projected capex program in SWC's submission, and expected outcomes

Murrumbidgee Irrigation (a member of the Customer Service Committee (CSC)) is having great difficulty accessing the content of SWC's Murrumbidgee Valley capex projects, and associated justifications. There is no information in the SWC submission to IPART about the projects, the drivers, and the justification for future SWC capex in the Murrumbidgee Valley.² It is a line item budget based on ambit claims. Customer concerns about over-investment and/or budgetary game playing are intensified by a continual process of budgetary expansion in SWC capex budget bids to IPART (appendix 2). Also, the lack of cost-benefit analysis supporting the capex contravenes previous IPART (and NWI) requirements that new investment or refurbishment of water infrastructure be economically viable and environmentally sustainable. Specific concerns relate to inclusion of projects that are unlikely to be implemented (eg, Mejum-Coolah storage) and gold-plating (eg, Blowering flood security upgrade).

Recommendation 6: The capex projects must be clearly identified to users in each Valley, along with appraisal of costs, benefits, and beneficiaries. If this is not provided through CSCs the IPART independent consultant should consult directly with Valley customers.

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

There are significant risks for stakeholders whatever approach is used by SWC for returns to capex. The important point is that SWC should not be able – whatever method is used – to transfer all the commercial risks onto stakeholders. There must be risk for the investor, otherwise there will be no incentives for sound management of SWC (see appendix 3).

Given the important role of Government as a customer and shareholder for SWC, the need for transparency is greater than normal – and this should be reflected throughout the conduct of SWC, DNR, and the NSW Treasury.

Recommendation 7: The RAB approach suggested by SWC would be satisfactory if:

² Murrumbidgee Irrigation will continue to pursue this information and will make supplementary submissions to IPART when appropriate information becomes available.

- (1) The above consultation and information is provided with respect to budgeted and actual capex by valley (recommendations 4 and 5).
- (2) SWC claims about depreciation rates (that coincidentally serve to increase returns to SWC) are subject to financial rigour and applied appropriately and consistently.
- (3) Annual returns of capital and on capital, and associated prices, are changed only in response to actual capital (rather than budget projections of capex investment).
- (4) The starting level of the RAB should be calculated as zero in 1997 and accumulate annually with net investment (capex less depreciation) since 1997 – with user and Government shares reflecting IPART decisions relevant to each investment.
- (5) There must be greater transparency in annually reporting of revenues actually received against agreed cost shares. That is, charges to and revenue from government must be clearly available in public reports.
- (6) Dividend policies must be clear, transparent in the IPART process, and consistent with ensuring that retained earnings are sufficient to underpin any desirable expansion of assets, without compromising the credit rating of SWC.
- (7) There be regular review and revaluation of the RAB to ensure that artificial net worth outcomes cannot be delivered through the nexus of monopoly pricing and MEERA asset values. The asset values of SWC should reflect prices that would be paid by willing buyers in the market place. This protection is required given the potential for investments for non-commercial objectives being transferred to paying customers.

Recommendation 8: The IPART independent consultant should be asked to identify the appropriate operational conditions for the RAB that would be needed to protect paying customers from monopoly rents, budget game playing, and other inefficiencies.

Recommendation 9: If the above cannot be delivered the current method of charging capital costs should remain (despite its weaknesses).

An appropriate rate of return for State Water.

A target rate of return of 5% to 6% on the user RAB seems reasonable given the risk profile of SWC. SWC has very few risks. Revenue from variable charges could fall by between 12 and 44 per cent before SWC would experience cash flow problems (without adjusting investment plans) in the Murrumbidgee (appendix 3). Its major risk is cash flow management problems from unsound capex programming and distribution of profits.

Recommendation 10: An average rate of return on SWC RAB of 5.5%.

1.3 Operating Expenditure of DNR

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

Paying customers have generally recognised the need to contribute to WRM services. The fact that we are meeting these costs should be specifically acknowledged because meeting the costs of line Ministries in Government is not a practice that is widely applied. Also, it is not clear to irrigators whether the money is being used to meet environmental services or to boost general revenue for the purposes of general government activities (see appendix 4). It would

seem fairer if WRM charges are directed to services in the Valley against which the charges have been levied. (See also recommendation 17.)

The lack of acknowledgment of irrigator contributions to WRM is unfair to those Valleys that are at greater than full cost recovery (including externalities), especially when it is so often alleged that we are subsidised (eg, in NWI fora). (See IPART charts 3.1 and 3.2 from Reports 8 and 9 the 2005-06 IPART Determination.)

Recommendation 11: There should be formal acknowledgment of customer contributions to WRM services, and steps taken to ensure the revenue is used for the environment in the Valleys from which the revenue is derived.

The efficient costs of providing WRM services

The efficiency of DNR's WRM services cannot be determined without adequate analysis of DNR's financial data and performance. There is much scope for differences between budgets (and charges) and actual expenditure in terms of level and direction. Much greater discipline in financial reporting and budgeting is required before there can be any confidence in the data, or increase in prices. The same can be said for projected costs, especially NWI related costs that seem to be a factor of 10 greater than similar activities conducted by Murrumbidgee Irrigation.

DNR continues to thumb its nose at IPART processes in terms of information. Current large scale revisions to data by DNR up to 2 years after the relevant financial year give no confidence in the financial records (see appendix 1 for estimates of actual spending in 2004 and compare with 2004 data contained in the DNR submission to IPART this year). If those records are correct – given stability in WRM services – we have seen a significant reduction in efficiency in recent years. Also, DNR's commercial operations should be clarified at an operational level. Most DNR employees believe themselves to be general government employees and do not realise that their employment is being financed by charges to water users.

Recommendation 12: DNR's historical costs should be subject to financial and performance audit, and projected costs should be subject to the same principles for service agreements that DNR recommends for application to ICDs for fee-for-service agreements (see p34 of DNR submission). If this is not done by DNR, the IPART independent consultant should be asked to consult with stakeholders as part of the review of DNR costs.

Recommendation 13: All of DNR's projected costs associated with implementing NWI and other reforms should be subject to very close scrutiny in terms of efficient delivery of services, and source of resources.

Recommendation 14: With the exception of licensing and registration services, all WRM services for which benefits can be fully captured by paying customers should be transferred to SWC (see appendix 4).

Recommendation 15: Remaining employees of DNR who are members of the Ministerial Corporation (ie, provide services to paying customers) should be clearly identifiable to customers (and all stakeholders), should know what their position is, who their customers are, and the services that are to be provided to customers.

Recommendation 16: Costs of licence registration and trade of allocation and entitlement should be user pays, transaction based, and not part of the IPART fixed and use price determinations.

The role of the CMAs in relation to WRM services

CMAs should take responsibility for management of WRM services in each Valley. This would improve the Valley targeting of services, as well as the efficiency and effectiveness of such service provision. If CMAs received the revenue collected from WRM charges for contestable services (such as modelling and information) in their respective Valleys they could use the revenue to contract in the required services - from DNR or other potential service providers – to ensure the agreed services are provided.

Recommendation 17: The demand side for WRM services, including environmental or contestable services (eg, modelling and information services), should be transferred to CMAs. DNR could be a provider within that market.

1.4 Capital expenditure by DNR

DNR proposes the use of MEERA values for its assets to calculate depreciation costs. Depreciation charges require the same protections for customers as other market based instruments. This is impossible within a government department. It is unusual enough that general governance activities are charged for at all, let alone imposing a commercial rate of return on such activities.

Recommendation 18: DNR should not be able to use a RAB approach for capex while it remains a Government department. DNR capex should be very closely monitored and controlled. This applies also to the MDBC charges on capital.

2. ALLOCATING EFFICIENT COSTS BETWEEN USERS AND THE COMMUNITY

2.1 State water allocation of costs

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

Despite SWC's acknowledgement of at least some of its wider customers in terms of public benefits (p20 of 141 of SWC IPART submission), paying customers continue to be threatened with increases in cost shares in the SWC submission. That is, an increasing share of rapidly increasing cost estimates – without much reference to increasing service levels to paying customers. Other mechanisms (than the current IPART determination reports) are needed to protect paying customers from game playing associated with budget submissions.

The preferred approach would be for SWC to submit Valley budgets (for both opex and capex) and associated service levels to each Valley CSC, and establish agreed cost-sharing based on established IPART principles. This will not be possible for this determination. However, it could readily be set in place if IPART were to publish – as part of this determination – its framework for cost sharing (by all types of expenditure). This could then be used as a reference for CSCs to guide implementation of the agreed spending programs (opex and capex), and formulate appropriate shares for the subsequent determination period. (See appendix 5.)

- Recommendation 19: IPART to publish cost share matrices for all expenditure (by type). SWC to consult with CSCs during determination period, and submit Valley budgets to CSCs and attempt to obtain agreed cost sharing prior to the next IPART process.
- Recommendation 20: If this is not done, the independent IPART consultant should consult with paying customers to assess relative levels of service provision and costs before recommending proposed cost shares by Valley.
- Recommendation 21: **Programs such as the NWI, where reduction – or risk of reduction - in water access has been exchanged for environmental protection and/or increased security, or where entitlement prices have increased due to water reforms aimed at constraining effective supply, should not be allocated fully to paying customers. NWI costs – and those of all reform programs – should be subject to normal cost sharing criteria in terms of cost drivers and/or beneficiaries. (Appendix 5.)**

2.2 *DNR allocation of costs*

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

The problems related to SWC submissions are magnified in respect of DNR, which emphasises the costs of reform in its submission. It argues that paying customers should meet the costs of all water reforms. This is clearly unfair and inefficient. (Appendix 5.)

- Recommendation 22: **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 equitably in any efficiency gains/benefits.**
- Recommendation 23: If the Government is retaining water savings benefits then equity considerations would demand that any water saving projects and activities by DNR (or SWC) be identified and excluded from customer costs.

What costs should be considered as “legacy costs”?

The principle of legacy is very important for protecting private paying customers from inheriting the risks of and financial burdens arising from over or inefficient investment in regulated river assets, and from the inappropriate transfer of responsibility for past non-commercial investment decisions to commercial customers.

- Recommendation 24: If there is no prior agreement at the CSC level, all costs that reflect or are driven by regulated river infrastructure assets prior to 1997 should be considered legacy costs. If SWC or DNR have not fully explained the need for capex (eg, via cost-benefit analysis) or opex (eg, cost effectiveness) there should be a presumption of significant legacy (eg, 75% legacy and Government contribution to costs).

What cost sharing arrangements should be applied to WRM activities?

Society would need to invest quite significantly in WRM if water were not extracted from rivers in current quantities - or simply accept the costs associated with natural flows. These costs would likely be substantial given the pattern of regional and urban population centres throughout the Murray-Darling basin, and the demands placed on natural resource managers for associated services to the public and the environment. Making such assessments would be time consuming and expensive. It seems more sensible to accept that WRM is in the interests of everyone, and derive reasonable cost shares that are fair and stable.

Recommendation 25: WRM expenditure cost shares should be based on the following criteria (see also appendix 5):

- (1) The proportion of costs driven by the demands of general governance of the natural resource for society should be allocated 100% to Government. (See appendix 4.)
- (2) The proportion of costs driven by private paying customers where benefits are fully captured by the private paying customers, should be met 100% by private paying customers. (This should not include price benefits for remaining entitlement or improvements to the licensing system associated with deals made to reduce water access entitlement.)
- (3) Costs driven by the need to mitigate external costs arising from the demands of paying customers, should be shared 50/50 between private paying customers and Government. (This reflects the social contract at the time of issue and acceptance of water access entitlements.)
- (4) Costs driven by environmental or public benefits and the benefits are captured fully by the environment or non-paying customers, should be met 100% by Government.

WRM prices need to be based on actual costs and services to the valleys that meet the costs.

DNR continues to recommend circumstances that increase the risk of cross-subsidies between, and within, Valleys for WRM services. This is inconsistent with the COAG and NWI water reform agendas. Given DNR's recalcitrance in the face of requirements for pricing reform and efficiency goals it would be better if CMA's in each Valley receive WRM revenue and contract DNR – or other agencies – to provide WRM services as and when required. (See also recommendation 17 above.)

Recommendation 26: DNR's selective promotion of cross-subsidisation throughout its submission is not supported in any instance.

2.3 Issues common to both SWC and DNR

What cost sharing arrangement should apply to MDBC expenditure?

Recommendation 27: The current MDBC cost sharing methods should not be changed unless SWC or DNR show clearly the method used for sharing costs, and subject it to analysis by concerned parties. This is not done in either submission.

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 are completely independent of the business. Without these conditions, there needs to be some protection for customers. Also, if SWC's and DNR's current inadequate consultation and reporting practices continue then compliance related expenditure should be ranked as requiring a very low cost share for paying customers.

Recommendation 28: If there is no prior agreement at the CSC level, compliance related expenditure cost shares should be based on the following criteria (see also appendix 5):

- (1) Compliance costs driven by legacy – or assets/services put in place prior to 1997 – should be allocated 100% to Government.
- (2) Compliance costs for assets/services put in place since 1997 that have been demanded by private paying customers and the benefits are fully captured by private paying customers should be met 100% by private paying customers.
- (3) Compliance costs for assets/services put in place since 1997 for which the costs and benefits, related risks, and beneficiaries have not been fully explained to the private paying customers should have a large legacy component, say, 75% or more.
- (4) Compliance costs for assets/services put in place since 1997, and driven by the need to mitigate external costs arising from the demands of paying customers, agreed by paying customers, should be shared 50/50 between private paying customers and Government.
- (5) Compliance costs for assets/services put in place since 1997, and driven by environment or public benefits that are fully captured by those stakeholders, should be met 100% by Government.

3. SETTING PRICES

3.1 Determining appropriate price structure

What is the appropriate balance between fixed and usage charges?

The mix between fixed and use charges for SWC seem reasonable. SWC argues that this will place enormous pressure on cash management. That is probably a very good thing (as 'over-investment' rather than 'under-investment' has been identified as the major problem for infrastructure assets and river regulation in the past).

If there is a problem in cash management, one option is for charges to Government reflecting Government cost shares to be 100% fixed. This would allow the Government to play a role in automatically stabilising the rural sector. Also, the demands of stakeholders represented by the Government (environment, fisheries, recreational services, flood mitigation etc) are often quite fixed or counter cyclical to the demands of paying customers. Finally, those customers are not linked to financial market conditions and use charges would not impact commercial outcomes.

Recommendation 29: Charges to Government by both SWC and DNR should be fixed as a first step in dealing with cash flow risks.

Should prices be set 1 standard deviation below use?

Setting prices based on water use projections that are 1 standard deviation below average would overcharge, on average, by 262,000 ML per year. This will result in expanded profits, but do little to combat the problem of revenue instability in drier years. (See also appendix 3.) Revenue instability is a cash management issue that needs to be addressed directly, and without imposing all the costs associated with that risk to one set of customers or stakeholder group. Financial strategies that should be explored first include: revisiting TAMPs in light of financial risks and tax effective financing (methods to realise value of tax losses), and revenue stabilisation mechanisms (aside from prices).

Recommendation 30: SWC should not be allowed to set prices using 1 standard deviation below the 100 year average for use charges. The method should be average use.

The 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.

Recommendation 31: The relative charges to high and general security are supported.

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

Recommendation 32: These prices should be set in such a way as to minimise potential for cross subsidisation between unregulated users and other users.

Recommendation 33: 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.

Recommendation 34: Access by unregulated users must comply with the valley cap and not exceed 1993-94 levels of use adjusted for climatic conditions.

Recommendation 35: Unmetered supplies should be subject to special arrangements – including monitoring of and rules for activation - to ensure there is no activation beyond the cap.

Are wholesale discounts for ICs are still appropriate?

Murrumbidgee Irrigation supports fair and efficient pricing between Valleys and within Valleys. The issue of wholesale discounts relates to the potential for cross subsidy within Valleys. Neither SWC or DNR have a strong track record of eliminating cross-subsidies either between Valleys or within Valleys. What is needed is a study of the issues by an independent consultant with full consultation stakeholders in the relevant Valley. (See also appendix 6.)

Recommendation 31: There should be a thorough and transparent investigation of relative costs shares within each Valley in consultation with stakeholders to

determine appropriate cost-sharing within Valley consistent with IPART principles and minimisation of cross subsidies.

Recommendation 32: Discounts for ICDs should not be changed until the issue is dealt with through a comprehensive assessment at the Valley level. Also, the discounts should deliver the same reduction in costs to be met by ICs as for the 2001 determination. In particular, the shift between fixed and use charges for SWC and DNR should not result in a reduction in the value of the discounts for ICs.

Murrumbidgee Irrigation would be interested in any arrangements where there is potential for efficiency gains by increasing the contestability or competition of WRM services. An early and effective start can be made through the implementation of recommendation 17 above.

Recommendation 33: Fee for service arrangements, as recommended by DNR rather than discounts, should be explored immediately, including DNR demands for the services of ICDs.

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

The study in recommendation 31 should establish appropriate levels of discounting for ICDs (see appendix 6).

What entitlement and use should be applicable to efficient costs for determination of prices?

In the course of the last IPART determination there was a – somewhat accidental – change to the entitlement and use that is applicable to the efficient costs of SWC and DNR to estimate fixed and use charges. Conveyance loss allowances for ICs, which had previously been ignored in setting prices, were included as a chargeable use. This has the effect of increasing the cost share applicable to ICs. It relates to the same issue of relative cost shares and potential for cross subsidies as discounting for ICs. It is therefore a very important issue and should not be addressed as an historical accident. (See also appendix 6.)

Rather than have this issue dealt with at an accidental level – or by arbitrary judgement, it should be included as part of the wider study to determine appropriate cost sharing within Valleys that enables efficient pricing consistent with minimal cross subsidisation. The study should be part of the same study referred to in recommendation 31. Other issues that need to be incorporated include current entitlement and access that are not being charged (such as stock and domestic, and riparian diverters), and the relative contributions of customers to valley costs.

Recommendation 34: The study in recommendation 31 should include identification of the appropriate entitlement and use that should be applicable to estimates of efficient costs to determine prices, consistent with IPART principles and minimisation of cross subsidies.

Recommendation 35: The entitlement and use applicable to efficient costs should not change from the 2001 IPART determination until the issue is dealt with through a comprehensive assessment at the Valley level.

What is the appropriate level and rate of change for prices?

Currently SWC and DNR seem to consider the benchmark for cost recovery from private paying customers as a moveable feast. Total resource cost projections seem to reflect an increasing annual budget line. This means that when cost shares of Government decline (for both opex and capex), there is a corresponding increase in revenue needed from private paying customers. This does not accord with expectations that the true costs applicable to private paying customers, and the associated price path, would be stable (rather than become an increasing share of unchanging aggregate budget estimates).

The culture of ambit claims in both SWC and DNR budget projections needs to be eliminated. The cost recovery 'target' and associated price path should be established by IPART for each valley and projected over the long term. This would provide a clear signal to service providers, private paying customers, and government (as a paying customer), and enable greater stability and certainty than at present. The focus for changes in the price reviews could then shift to fundamental issues such as efficiency gains, technical changes, levels of service demanded, and general price shocks (where appropriate).

Such a system would result in clear benchmarks for full efficient cost recovery by Valley. Once this 'appropriate' price path has been fairly established stakeholders would be able to know and agree on reasonable transition paths over a sensible time frame (where there is currently under-recovery).

Recommendation 36: The cost recovery 'target' and associated price path should be established by IPART for each valley and projected over at least 10 years.

Appendix 1: The question of SWC and DNR efficiency, and fairness

The following table shows recent SWC and DNR budgets (or IPART determinations) for 2004, actual expenditures in that year, and corresponding bids to IPART for 2007. It is acknowledged that DNR has revised its estimated actual expenditure on WRM in the Murrumbidgee Valley in 2004 to \$7.5m in its recent submission to IPART. But this change of \$3m (or about 67% against the original estimate in 2005) 2 years later does not engender confidence in paying customers.

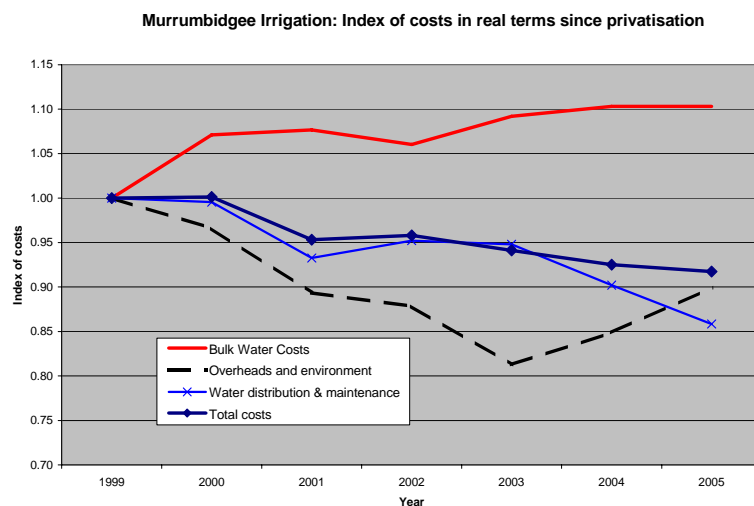
Table 1:
Budget and actual cost outcomes in Murrumbidgee for 2004, and 2007 bids

Expenditure type	Budget	Actual	2007 Bids
	\$m	\$m	\$m
Total operations expenditure (a)	5,988	3,574	6,775
"User" share	5,019	3,408	6,522
Total capital charges (a)	3,016	2,089	5,917
"User" share (b)	1,609	338	3,117
Total WRM expenditure (c)	6,151	4,545	7,196
"User" share (c)	3,665	3,665	5,866
Total expenditure	15,155	10,208	19,888
"User" share (c)	10,293	7,411	15,505

- (a) 2007 data is apportioned to Government using the Valley ratio to total costs for user shares.
 (b) 2004 data based on capex, 2007 data on RAB returns
 (c) Assumes that all "actual" WRM costs in 2004 met budgeted services to users. DNR have updated the 2004 actual expenditure to \$7.5m (a difference of \$3m).
 Data sources: IPART determination 2001, and SWC and DNR IPART submissions 2005, and 2006.

The data shows large differences between IPART approved revenue, actual expenditures, and bids by the two service providers. The 2004 bids by both providers exceeded the IPART approved levels of efficient costs significantly. At the same time, water users have not experienced much change in the level of service provision over the last few years (and longer).

The following chart shows indices of Murrumbidgee Irrigation's real costs of water delivery since 1999. It shows that bulk water prices (reflecting SWC and DNR charges) have increased significantly relative to all other cost elements. Also MI service levels have increased over the same period, whereas bulk water services have remained about the same.

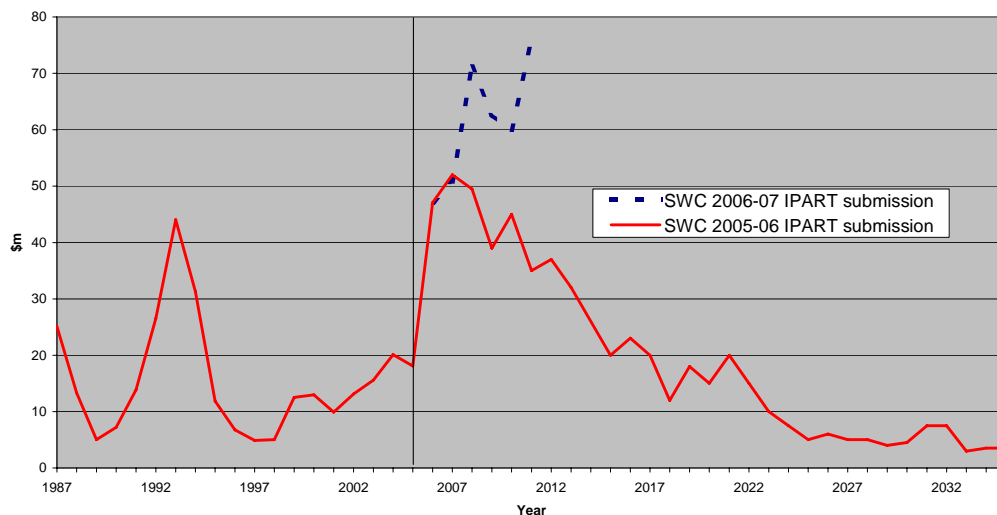


Appendix 2: SWC's historical and projected capex

The following chart shows State Water's historical investment in capex, projections made by SWC for the 2005-06 IPART determination, and its current submission for the years 2006-07 to 2010-11. In this context it needs to be noted that the future path for capex feeds directly into bulk water pricing whether or not we use a RAB or annuities approach (if the RAB is calculated on projected capex). SWC therefore has strong commercial incentives to set high capex budgets over the short to medium term, and SWC capex submissions to IPART have consistently increased in respect of that time period. Actual capex has consistently been much lower than IPART budget submissions and determinations. There is no data available to assess this by Valley, but the aggregate trends suggest that each Valley should be concerned. The SWC 2006-07 submission implies that we are entering something of a boom period of investment in river infrastructure in the next five years. Particular issues include:

1. Current water reforms seem to reflect fears by society of past over-investment, yet SWC clearly intends to significantly increase such capital in future. Is SWC in touch with its stakeholders/customers?
2. Much of the capex budgeted in the Murrumbidgee Valley is expected to be in compliance expenditure at Blowering Dam. But Blowering is a relatively young dam and the risk management issues and project justification have not been explained to stakeholders. This expenditure is legacy and therefore met by Government, but it is a good example of why commercial customers are concerned about SWC (and DNR) capex plans.
3. There seems to be quite a deal of capex in refurbishments of river structures such as weirs. Such investments need to be subject to rigorous appraisal – as opposed to a line item budget submission – prior to approval. Is there justification for the expenditures, should all current structures be maintained at current levels, and are there alternative ways of meeting the demands of the relevant stakeholders? This has not been done.

SWC capex: actual and projected



Note: There are uncertainties about data used. Projected capex has been read off SW's IPART submission, and 'actual' investment has been extracted from a number of State Water publications. But the broad trends are expected to be

Appendix 3: SWC's financial outcomes against the 'user' account in Murrumbidgee

The following table shows estimated financial outcomes for SWC for transactions with "users" only based on the SWC submission to IPART for the 2006-07. It shows that the proposed returns for SWC are quite high, and the business risks are very low.

The returns are high firstly because SWC project revenue requirements based on budgets. That is, SWC propose to charge for services that are not in place (because the capex has not yet occurred). If an RAB is to work, it should be based on real capital and services, and returns of and on capital should only be calculated for capital at the start of the relevant year. It is not appropriate to allow a price setter – such as SWC – to set those prices on budget estimates.

The second reason that returns are high is upside financial risks (risk of increased revenue and/or decreased costs) are reasonably high. If SWC continues its historical levels of opex in the Murrumbidgee, say \$3.5m, then the gross return on capital averages over 16%, and the net return would average over 15%. An assumption of little or no change in actual opex costs would not seem extraordinary.

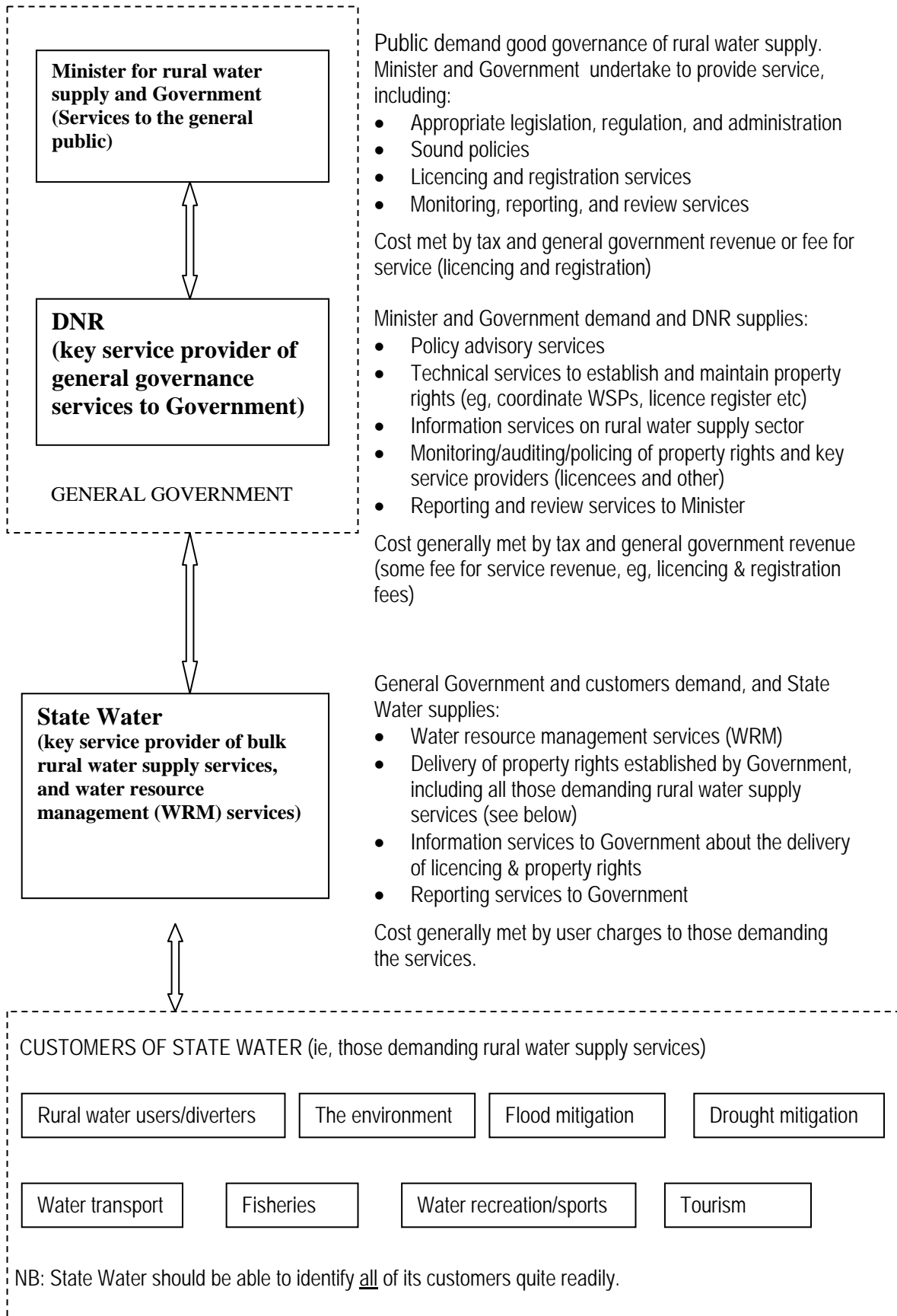
The prices suggested by SWC are based on the one standard deviation below average use. In the Murrumbidgee this is 14% below average use. If diversions over the next few years are average the gross return for SWC increases to over 11% and the net return to over 10%. This is quite probable given that since 1999-2000 regulated diversions in the Murrumbidgee have averaged 1,838 GL or just 4% below average. This period has seen the worst drought sequence for the Valley since the Federation drought at the turn of the century.

Taken together the 'upside' financial risks would result in a gross return on capital of over 18% and a net return of over 17%.

SWC financial outcomes on the "user" account (SWC IPART submission 2006-07)

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
	\$m	\$m	\$m	\$m	\$m
"User" revenue	9.639	9.791	9.737	9.653	9.585
* fixed charges	3.856	3.916	3.895	3.861	3.834
* variable charges	5.783	5.875	5.842	5.792	5.751
"User" opex	6.522	6.522	6.326	6.136	5.952
Depreciation (return of capital)	0.284	0.31	0.334	0.352	0.372
Profit (return on capital)	2.833	2.959	3.077	3.165	3.261
Capex	2.399	1.813	2.206	0.973	2.492
RAB (end year)	36.115	37.618	39.49	40.111	42.231
Cash flow	0.718	1.456	1.205	2.544	1.141
Accumulated cash flow	0.718	2.174	3.379	5.923	7.064
<u>Returns (% of the start year RAB)</u>					
* gross (of plus on capital)	9.2%	9.1%	9.1%	8.9%	9.1%
* net (on capital only)	8.3%	8.2%	8.2%	8.0%	8.1%
* cash	2.1%	4.0%	3.2%	6.4%	2.8%
<u>Cash flow (% of variable charges)</u>	12.4%	24.8%	20.6%	43.9%	19.8%
Initial RAB (end 2005-06)	34	\$m			
Ave depreciation	0.3304	\$m			
Ave investment	1.9766	\$m			
Ave net capex	1.6462	\$m			
Ave depreciation (% of RAB)	0.9%				
Ave return on capital	8.2%				
Eventual capital	225	\$m			
Eventual net profit per year	18	\$m			

Appendix 4: Proposed structure and broad financing of rural bulk water supply



Appendix 5: Cost sharing

The people that know the correct cost drivers and beneficiaries of SWC and DNR expenditure by Valley are the stakeholders within the Valley. The stakeholders driving costs are usually willing to identify themselves, as are the beneficiaries. If these people are armed with a clear statement of cost sharing principles (as determined by IPART), full information from SWC and DNR about expenditure needs and associated services, and the opportunity to consult with SWC and DNR, appropriate cost sharing arrangements would likely result. IPART would then be able to focus on more narrow situations where agreement has not been achieved.

The risks for paying customers – even after review by the independent consultant – are that projects and activities may not actually be driven nor benefits received by the obvious candidate. For example, it is not unusual for irrigators to be happy with the decommissioning of a river structure (such as a weir) but the structure remains because of the demands of urban, recreational or tourism stakeholders. The presumption, however, is that the diverters are driving such costs and reaping the benefits.

There is greater acknowledgment of public drivers and beneficiaries in SWC's submission (eg, p20). But the statement that "without SWC dams the (value of) access licences (of entitlement holders) would lose 90% of their value" is an example of just how far removed from true cost sharing principles the current service providers are.

Firstly, it is most unlikely that there would be a reduction in value of licences anywhere near that estimate. The farmers reliant on irrigation would either build dams or rely on access to unregulated flows to supplement water budgets. It is true that this would involve significant restructuring, eg, regional, industry, and farm size shifts. But the value of irrigation water (however delivered) is unlikely to decline. There is already significant excess demand for that product.

Second the statement excludes the impact on asset values for all other stakeholders in the current river management system, and it is here that we would see very significant declines in asset values. There is no particular surplus demand for tourism services west of the great dividing range, and impacts of drought and flood would likely drive much of the population onto the eastern seaboard (much quicker than is currently the case), and regional housing and business assets would decline very rapidly. Much of the current recreational and water sporting facilities would be denied to existing users, and important tourism assets would disappear. Schools and hospitals would not be viable. 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. Many would simply move. Eventually we would probably see a region with large scale farming enterprises serviced by very small rural communities. The environment would probably not do well because entitlement holders would be competing for more opportunistic water (that has greater environmental characteristics). Salinity and blue-green algae problems would remain in the natural flow regime. Finally, Government is unlikely to save much in terms of finance. Flood damage payments would increase as would drought relief, and SWC need only check its own costs in unregulated rivers to know that the recurrent savings in expenditure would not be very large.

As noted above the drivers and beneficiaries are not that difficult to determine at the regional and stakeholder level. Even at the wider valley level many of the assets and services have clear drivers and beneficiaries. For example, if a dam has, say, 20% airspace required for flood

mitigation then it stands to reason that 20% of the costs are being driven by flood mitigation services. Likewise, if dam storage services are effectively reduced by 5% for environmental flows, those costs should not be presumed to be costs driven by paying customers (unless there is clear agreement about a sharing of externality costs of some kind).

The IPART principles for cost sharing seem to be fairly well established. They seem to accord quite well with NWI cost or risk sharing principles in the event of reductions in effective water access by entitlement holders. Where there is room for improvement for paying customers is the case when new investment or refurbishments are planned or implemented without reference to customer service committees. These situations more closely resemble the pre-1997 situation than the commercial approach that IPART has been aiming to achieve since 1997. In such cases, the risks should be borne more by the owner/manager.

On this basis, the following principles are suggested for preparing a cost-sharing matrix that could be systematically applied for future expenditures.

- (1) Costs driven by legacy – or assets/services put in place prior to 1997 – should be allocated 100% to Government.
- (2) Costs for assets/services put in place since 1997 that have been demanded by private paying customers and the benefits are fully captured by private paying customers should be met 100% by private paying customers.
- (3) Costs for assets/services put in place since 1997 for which the costs and benefits, related risks, and beneficiaries have not been fully explained to the private paying customers should have a large legacy component, say, 75% or more.
- (4) Costs for assets/services put in place since 1997, and driven by the need to mitigate external costs arising from the demands of paying customers, should be shared 50/50 between private paying customers and Government. (This reflects a shared responsibility for the spillover costs associated with issuance and acceptance of water access licences.)
- (5) Costs for assets/services put in place since 1997, and driven by environment or public benefits that are fully captured by those stakeholders, should be met 100% by Government.

If these principles were agreed it would be relatively simple for service providers and customers to use the matrix to determine appropriate cost sharing for any project or activity using a simple spreadsheet. The following example shows a project that includes a range of drivers/beneficiaries and IPART cost shares based on the above principles. In this case it turns out that what SWC and DNR term the 'user' share is 57% of the costs of the project.

	Cost drivers/beneficiaries								
	Diverters	Flood	Drought	Environ- ment	Sport & Rec.	Boating	Fisheries	Tourism & amenity	Agreed cost shares
All (% of cost driver)	64%	12%	4%	5%	6%	1%	3%	7%	
IPART cost shares									
1 Paying diverters	90%	0%	0%	50%	0%	0%	50%	0%	57%
2 Non-paying diverters	10%	0%	0%	0%	0%	0%	0%	0%	6%
3 Flood control	0%	100%	100%	0%	0%	0%	0%	0%	12%
4 Drought mitigation	0%	0%	0%	0%	0%	0%	0%	0%	4%
5 Environment	0%	0%	0%	50%	0%	0%	0%	0%	5%
6 Sport & Recreation	0%	0%	0%	0%	100%	0%	0%	0%	6%
7 Boating	0%	0%	0%	0%	0%	100%	0%	0%	1%
8 Fisheries	0%	0%	0%	0%	0%	0%	50%	0%	3%
9 Tourism	0%	0%	0%	0%	0%	0%	0%	100%	7%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

Appendix 6: The issue of cross subsidy within valleys and IC discounts

Both SWC and DNR argue for elimination of discounts to ICs on the ground that it is a cross subsidy. There are three, quite separate, potential reasons to justify differential pricing for irrigation corporations (ICs). Economies of scale, the differences in costs involved with wholesale and retail services, and fee for service arrangements. Since there is a tendency to mix these issues together, it may help to deal with them separately.

1) Economies of scale.

SWC asserts that "SWC's costs to supply a 10 ML order to a river pumper are the same as supplying 1,000 ML to an irrigation company". Lets assume that the statement is correct and the costs are \$100 in each instance (it doesn't matter what the costs are as long as they are "the same"). This would mean that the unit cost per ML for the river pumper would be \$10, and the unit cost for the IC would be 10 cents. On this basis SWC seems to support the existence of quite large economies of scale. That is not unexpected given SWC statements that its costs are largely fixed. What may be a little unexpected is just how large the savings from scale are, but they are not out of line with Murrumbidgee Irrigation's experience that shows very large increases in unit costs as water use diminishes.

DNR also asserts that its costs are fixed. This would suggest quite significant economies of scale associated with delivering those WRM services. For example, the WRM unit costs involved with providing a given level of service for a relatively small area of high intensity irrigation (ICs) could be expected to be much lower than for a very large area of low intensity irrigation (non IC customers in the Murrumbidgee Valley).

2) Different costs associated with wholesale and retail services

SWC has approximately 900 customers in the Murrumbidgee Valley. Murrumbidgee Irrigation is just one customer. We take 'wholesale' bulk water from SWC to service about 3,000 retail³ customers with entitlement of about 1,200 GL. SWC provides about 700 river pumpers with entitlement of around 600 GL with additional bulk water conforming to a retail service.

The main differences between wholesale services and retail services is that for the wholesale service SWC does not have to concern itself with opex or capex costs associated with each individual customers water ordering, flow management, measurement, billing, and overheads of these services. When MI was privatised the costs of these services were eliminated for SWC and DNR. It therefore amounts to 'double charging' of MI retail customers if they are now being asked to share in any remaining SWC or DNR costs of providing these retail services to the rest of the Valley. The costs are substantial (at about \$5-\$6 per ML to current customers).

If there is a cross subsidy favouring IC customers, then by definition SWC would jump at the chance to provide the retail services to MI customers at the current prices that it charges the rest of the Valley for those services (because revenue would exceed costs for SWC). Such a contract could readily be arranged. Murrumbidgee Irrigation would be delighted to provide SWC with such an opportunity – and at the same time probably halve its charges to its customers. (Naturally SWC would have to also accept the risk of whether its services meet DNR standards.)

³ Retail is herein defined as the final delivery of water to the end user.

3) Services provided by ICs direct to SWC and/or DNR

The ICs provide significant direct information services to assist SWC with river flow management, including demand forecasts, extraction rates, escape flows, and special events such as high flow management. SWC should be able to define its base information services (being the same service that is provided by other users such as river pumpers). Murrumbidgee Irrigation is certain that it could readily meet the base information service and charge SWC an acceptable hourly rate for any information that it may require beyond the base level of information service.

ICs also provide very significant WRM services to the State that are beyond the base level of information required by other customers, including modelling services, data services, monitoring services, LWMP services, etc. Once again, Murrumbidgee Irrigation would welcome DNR to define the base standard of service in these areas required of each Valley entitlement holder. The Company could then readily arrange to invoice DNR for any WRM services required above that level.