Western Murray Irrigation Limited

ACN 067 197 853

Submission to the IPART Review of Bulk Water Prices from 2006/07

1. Introduction

Western Murray Irrigation Limited (WMI) is an unlisted public company limited by shares. WMI shareholders hold an entitlement to approximately 61,000 ML of high security water, of which approximately 30,000 ML is delivered annually to irrigators within WMI's three irrigation areas of Buronga, Coomealla and Curlwaa. The water is pumped directly from the River Murray via three separate pumping stations and delivered through fully pipelined delivery infrastructure.

2. This submission

WMI supports the NSW Irrigators Council submission to IPART. There are two areas where WMI would like to add to that submission, namely the level of the 'unconstrained' prices submitted by State Water and wholesale discounts.

3. 'Unconstrained' Prices submitted by State Water

WMI is disappointed by the approach taken by State Water in submitting its pricing proposals.

WMI believes State Water should be encouraged to streamline its business and achieve real cost reductions over time, rather than producing 'unconstrained' prices and expecting irrigators to absorb the cost of growing inefficiencies within its business.

As an example of what can be achieved, WMI's prices have risen from $44/ML excluding Government charges (for Coomealla) shortly after privatisation in 1995/96 to $58.68/ML in 2004/05. This increase, at a rate only just exceeding inflation, has included the introduction of full cost recovery by the implementation of a sinking fund for the full replacement of WMI's infrastructure at the end of its life and an annual repayment for a loan to refurbish the irrigation infrastructure. It also includes the cost of WMI's commitments to its Land and Water Management Plan. This has been achieved by the rationalisation of WMI's business and the commercial attitude taken towards the operation of WMI. State Water should be encouraged to take a similar commercial attitude towards its business.

4. Wholesale Discounts

WMI believes that Irrigation Corporations contribute significantly to the operations of both State Water and DNR. This includes assisting State Water's management of flows by providing four and seven day advance extraction forecasts, as well as actual daily extraction figures.

In relation to the contribution WMI makes to DNR's operations, WMI operates the Curlwaa Tubewells groundwater interception scheme. This scheme is listed by the

MDBC as being "owned and operated by NSW" (seen Note 5 in Appendix A). It is in fact owned and operated by WMI, for which WMI receives no financial return.

In addition, under its licence conditions, WMI also undertakes monitoring of drainage water quality as well as monitoring of groundwater levels in a large area surrounding its area of operations. This is in addition to contributing financially to the monitoring program in the same area undertaken by DNR.

WMI believes that a 'fee for service' type arrangement for the services it provides would not be fairly administered and licence conditions (which are far more stringent than for private diverters) would be used to force irrigation corporations to perform these activities without compensation.

WMI continues to maintain that bulk discounts should be in place as they are in many other businesses. The proposal for the removal of these bulk discounts would mean that large customers are forced to subsidise smaller, higher cost customers, whose meters need to be individually read and bills individually generated and sent. WMI would also like IPART to consider increasing the size of the discount received by WMI, given the higher discounts relative to water diversions of other similar sized irrigation corporations in the Murray Valley.

Appendix A

Murray River Salt Interception Schemes - Produced by MDBC

Keeping salt out of the Murray

River Murray Water
A Business Unit of MDBC

1 Waikerie Groundwater Interception Scheme
- Commissioned in 1992
- Operated by South Australia on behalf of the Murray-Darling Basin Commission
- Type of scheme: groundwater pumping with disposal to evaporation basins
- Designed to intercept up to 80 tonnes of salt a day
- Reduces the average salinity at Morgan initially by approximately 13 EC with additional benefits of about 10 EC once stage IIa and IIb are complete

2 Woolpunda Groundwater Interception Scheme
- First half of scheme began operating in 1990, remainder in 1992
- Operated by South Australia on behalf of the Murray-Darling Basin Commission
- Type of scheme: groundwater pumping disposal to evaporation basins
- Designed to intercept 170 tonnes of salt a day
- Reduces the average salinity at Morgan by an estimated 41 EC

3 Noora Drainage Disposal Scheme
- Commissioned in 1982
- Owned and operated by South Australia
- Type of scheme: pumping of drainage waters from riverside basins to evaporation basin
- Diverts an average of 110 tonnes of salt a day
- Reduces the average salinity at Morgan by about 21 EC

4 Rufus River Groundwater Interception Scheme
- Commissioned in 1984
- Operated by South Australia on behalf of the Murray-Darling Basin Commission
- Type of scheme: groundwater pumping with disposal to evaporation basins
- Designed to divert up to 200 tonnes a day
- Reduces the average salinity at Morgan by an estimated 43 EC

5 Curlwaa Groundwater Interception Scheme
- Commissioned in 1973
- Owned and operated by New South Wales
- Type of scheme: groundwater interception with disposal to evaporation basins
- The system diverts 9 tonnes of salt a day
- Reduces the average salinity at Morgan by about 1.7 EC

6 Lake Hawthorn Drainage Diversion Scheme
- Commissioned in 1968, upgraded recently
- Owned and operated by Victoria
- Type of scheme: drainage disposal to evaporation basins
- A natural depression located between Mildura and Merbein irrigation districts
- Accepts an average salt load of about 38 tonnes a day
- Operates in conjunction with the nearby Mildura-Merbein Groundwater Interception Scheme
- Reduces the average salinity at Morgan by approximately 7 EC

7 Buronga Groundwater Interception Scheme
- Commissioned in 1979
- Owned and operated by New South Wales
- 1988 upgrade of scheme was funded by the Murray-Darling Basin Commission
- Type of scheme: groundwater interception with disposal to evaporation basins
- The scheme is designed to intercept up to 200 tonnes of salt a day
- In combination with the Mildura-Merbein Groundwater Interception Scheme, reduces the average salinity at Morgan by an estimated 33 EC

8 Psyche Bend Drainage Diversion Scheme
- Established in 1996
- Owned and operated by Victoria
- Type of scheme: drainage diversion
- The system holds back an estimated 15 tonnes of salt a day
- Reduces the average salinity at Morgan by approximately 1 EC

9 Mildura-Merbein Groundwater Interception Scheme
- Commissioned in 1981
- Owned and operated by Victoria
- 1990 upgrade of scheme was funded by the Murray-Darling Basin Commission
- Type of scheme: groundwater interception with disposal to evaporation basins
- Designed to intercept 70% of highly saline groundwater entering the River Murray in this area
- In combination with the Buronga Groundwater Interception Scheme, reduces the average salinity at Morgan by an estimated 33 EC

10 Mallee Cliffs Groundwater Interception Scheme
- Commissioned in 1994
- Operated by NSW on behalf of the Murray-Darling Basin Commission
- Type of scheme: groundwater interception with disposal to evaporation basins and leakage to the groundwater
- Designed to intercept up to 100 tonnes of salt a day
- Reduces the average salinity at Morgan by an estimated 13 EC

11 Barr Creek Drainage Diversion Scheme
- Established in 1968
- Operated by Victoria on behalf of the Murray-Darling Basin Commission
- Type of scheme: saline water diversion to evaporation basins
- Diverts an average of about 85 tonnes of salt a day
- Reduces the average salinity at Morgan by approximately 9 EC

SALT – A NATURAL FEATURE OF THE RIVER SCENE

The Murray-Darling Basin is a naturally saline environment. The salts come from the weathering of the rocks, from groundwater, and from salt deposited over many thousands of years by precipitation (cyclic salt).

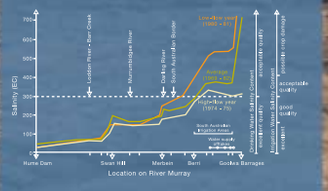
There is also a clear relationship between river flow and salinity levels, the lower the flow the higher the level of salinity. Flows are affected by natural conditions, but river regulation, can influence the number of periods of very low flows and hence of very high salinity levels.

When the explorer Charles Sturt discovered the Darling River in the dry season of 1829, he found the water too salty to drink.

The most comprehensive information available on river water salinity is for the River Murray. Quite apart from variations over time that are related to river flow, there is a very marked downstream increase in salinity levels.

There are a number of reasons for this, both natural and as a result of human activities. Evaporation from the generally slow-moving river is one factor. Downstream of Euston, there are relatively steady inflows of saline groundwater. Such inflows are particularly significant in the South Australian section of the river. These natural processes have been exacerbated by drainage flows from irrigation areas and rising groundwater levels due to irrigation.

More recently, problems have emerged in the much more extensive areas of dryland farming, with rising watertables bringing saline groundwater close to and to the surface, resulting in land salinisation. Especially at times of low or base flows, shallow saline watertables can contribute most of the water in some tributary streams.

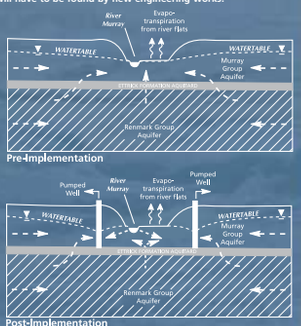


SALT INTERCEPTION WORKS – WHAT ARE THEY?

Salt interception works are large-scale groundwater pumping and drainage projects that intercept saline water flows and dispose of them, generally by evaporation. Since 1988, the States of New South Wales, Victoria and South Australia together with the Commonwealth Government have funded the construction of salt interception works, that resulted in a reduction of 80 EC units at Morgan. (An EC unit is a measure of salinity concentration)

To achieve this reduction, these salt interception works have together pumped about 55 000 megalitres of saline water from the watertables each year, resulting in about 550 000 tonnes of salt being kept out of the River Murray each year.
(1 megalitre = the volume of 1 Olympic-size swimming pool)

To maintain Morgan salinity at 800 EC or less for 95 per cent of the time, for the life of the Basin Salinity Management Strategy (2015), a further reduction in salinity of about 100 EC at Morgan will have to be found by new engineering works.



WHAT HAPPENS TO THE COLLECTED SALT?

The two basic methods of disposal of saline waters from these schemes are through concentration and seepage back into the groundwater or by crystallising of salt on the ground surface.

Groundwater Disposal

The saline water is concentrated through solar evaporation and the resultant solution is permitted to seep back into the groundwater. Although this disposal method is only employed in areas where there would be minimal impacts, it does however eventually flow back to the river, but at a very slow pace.

Crystallisation

In some selected disposal basins, the water is evaporated, leaving the crystallised salt on the surface. In a number of areas, commercial operators harvest this salt for resale. Different salts are extracted at different stages for different uses:

- calcium salts - used for gypsum
- sodium chloride - used for table salt, agriculture, swimming pools, the tanning industry and as a de-icing agent
- bitterns - a mixture of magnesium, chloride, calcium and sodium left over from the above two extractions, used for dust suppression (for example, on dirt roads)
- magnesium sulphate extracted from the bitterns - used as a fertiliser, although much more expensive to extract than the other salts, it has a high value as well.

Salt harvesting is carried out by a number of small commercial 'boutique' operators. It is never expected to be a large industry along the River Murray.

WHAT IS PLANNED?

A joint program of salt interception schemes, costing an estimated $60 million, commenced in 2001. This program is expected to deliver 61 EC at Morgan by December 2007. The partner Governments of New South Wales, Victoria and South Australia and the Commonwealth have agreed that joint salt interception schemes must both be economically and technically feasible. All things being equal, the most economic schemes should proceed first.

Work is currently (early 2003) progressing on the construction of the Waikerie Phase 2 project. This project is estimated to cost $3.4 million and is conservatively expected to intercept (on average) an additional 23 tonnes of salt every day.

A $10 million project to intercept groundwater from entering the Pyramid Creek in Northern Victoria is currently under development. It is anticipated that this scheme will stop about 30 000 tonnes of salt each year. Negotiations with a commercial salt harvester are proceeding to improve the financial viability of this project for the Basin partner Governments.

New South Wales, Victoria and South Australia are currently developing a number of schemes to be part of the jointly funded program as follows:

Salt Interception Scheme	Estimated EC Credits
Pyramid Creek SIS (Victoria)	5.3
Bookpurnong SIS (South Australia)	20.5
Lindsay River SIS (Victoria)	4.0
Barr Creek - vegetative augmentation (Victoria)	12.0
Loxton SIS (South Australia)	12.4
Chowilla SIS (South Australia)	14.0
Sunraysia Regional SIS Optimisation and Integration (NSW)	to be determined
Billabong Creek SIS (New South Wales)	1.9–3.9
Upper Darling–Glen Villa (New South Wales)	4.5