

## Irrigation management in the Northern Mallee

Prioritising financial incentives for  
irrigation works.



Sustainable Landscapes Mallee

Snapshot 2008

## New model prioritises funding applicants...

Murray River health the ultimate goal

Historically, state and federal governments have provided incentive funding for irrigators to improve their systems and management. This funding aimed to increase water use efficiency, resulting in a reduction in the impact of salinity, and improved river health.

More than \$4 million in incentive funding has been provided to irrigators in the northern Mallee since 1993. Since 2001, funds were derived from the Mallee Catchment Management Authority Water Resources Program, and allocated by the Department of Primary Industries (DPI) Mildura Sustainable Landscapes Mallee team.

To ensure that incentive funds were used most effectively, **DPI Irrigation Extension Officer Andrew Brastrup** helped to develop an innovative computer-based model. The model allocates funding in a sophisticated and equitable manner, prioritising applicants on their potential to reduce river salt per dollar of government money invested.

"In some ways our new prioritisation system is like medical triage," explained Andrew.



Andrew Brastrup, Irrigation Extension Officer  
Sustainable Landscapes Mallee

Progress through Partnerships



### In a nutshell...

- In 2007, more than \$1.7 million in financial incentives was made available to northern Mallee irrigators to complete works valued at \$8.56 million.
- The new DPI computer-based model prioritises incentive applicants on their potential to reduce river salt per dollar of government money invested.
- The prioritisation process ensures government incentive funding is allocated in a sophisticated and equitable manner.

## DEPARTMENT OF PRIMARY INDUSTRIES

"We are the doctors, irrigators and their systems are our patients, and the health of the river is our ultimate goal. The computer model helps us to work out who should be treated first.

Using our new computer model, we sort applicants for irrigation incentive funding based on their likely impact on river salinity, and therefore river health. Funds are then allocated accordingly, meaning that the money is going towards improving systems in those areas where we will get the most 'bang for our buck'."

*"...our new prioritisation system is like medical triage. We are the doctors, irrigators and their systems are our patients, and the health of the river is our ultimate goal..."*

The DPI funding prioritisation model evolved over time, using as its basis a computer-based planning tool developed by consulting firm Sinclair Knight Mertz (SKM) and the Mallee Catchment Management Authority.

"We built on the original SKM tool, adding information such as: property location, size and identification, size of the area on which irrigation

system is to be improved, irrigation records (actual water use), crop type, distance from river, and salinity impact region," said Andrew.

"This information is then used to forecast potential drainage savings and realistic changes in the salt impact on the river from irrigation works. We then compare the forecast saving in salt tonnes to the dollars to be invested (incentive funding), and use this ratio to objectively rank applicants."

Andrew and the other members of his team at DPI Mildura are justifiably proud of the new prioritisation model, believing that it could have application in other parts of Australia.

"We are very excited by this process," said Andrew.

"It is the first time (that we know of) that a model like this has been used to allocate government incentive funding in Australia. A logical next step would be to look at how it could be used in other regions responsible for managing incentives. Who knows what could happen from there?"

### What happened in 2007?

#### Financial incentives

Incentive funding amount and focus can vary from year to year. In 2007, **more than \$1.7 million** in financial incentives was made available to northern Mallee irrigators to complete works valued at \$8.56 million.

#### Incentives allocated in 2007:

Irrigation Systems Check  
Total allocation: **\$84,330**

A 90% incentive payment (up to a maximum claim of \$900) to measure the efficiency of a current irrigation system and recommend improvements.

Scheduling Equipment Incentive  
Total allocation: **\$338,902**

A 50% incentive to purchase approved scheduling equipment.

Area under scheduling: <20ha    20-40ha    >40ha  
Maximum Incentive:    \$10,000    \$15,000    \$20,000

#### Irrigation & Drainage Management Plan

Total allocation: **\$140,409**

A 50% incentive (to a maximum claim of \$5,000) to: perform a soil survey, cover backhoe hire, purchase an aerial photo, have a report generated, and/or any reasonable cost associated with developing an Irrigation and Drainage Management Plan.

#### Systems Upgrade

Total allocation: **\$1,181,086**

Up to 25% of the irrigation system upgrade costs per property. Includes headworks as well as field works.  
Upgrade area:            <20ha    20-40ha    >40ha  
Maximum incentive:    \$10,000    \$20,000    \$30,000

#### Further information

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