



GOULBURN  
BROKEN  
CATCHMENT  
MANAGEMENT  
AUTHORITY

# Municipal In *f*ex

December 2004

Volume 1 Issue 3.

## Securing our Water Future

### Points of interest

- > We need to find smarter ways to use and manage our finite water resource.
- > Climate change is predicted to create more hot and dry days in the Murray –Darling Basin. Annual temperatures are predicted to increase by up to two degrees by 2030 and six degrees by 2070. These temperature rises will increase the demand for water. At the same time rainfall is expected to decrease.
- > Wasteful water practices play a major part in the pressure on water resources. Melbourne's freshwater is considered to be of the highest quality— but households typically use more than half of their water on gardens and to flush toilets.
- > Traditionally, water as a resource has been free and water users have only paid for the cost of service delivery. Water prices must now reflect the scarcity of the resource or the environmental impact associated with its use.

Water is fundamental to all Victorians, whether we live in the greater Melbourne area, in regional centres or farm the country side. Access to a quality water supply is the key foundation of our economy, society and the environment.

However it has become increasingly clear that our current water use is not sustainable.

The environmental quality of our water resources is under serious pressure, our water supply is limited and our demands are increasing.

Through the framework laid out in the Victorian Government White Paper "Securing our Water Future Together" the government aims to achieve the sustainable management of water to allow all the benefits of water to be enjoyed today while protecting the needs of future generations.

Six priority areas for action as

set out in the white paper are as follows.

**Water Resources and their Allocation** – The white paper brings all of the State's water resources under a sustainable water allocation regime to manage the allocation of water resources across Victoria. In doing this there is increased capacity to find the right balance between economic, environmental and social values and to anticipate and manage risks to our water resources .

**Restoring our Rivers and Aquifers for Future Generations** – The government's aspiration is to have healthy rivers, floodplains, estuaries and catchments. To assist this aspiration, the white paper clearly defines the major roles and responsibilities for river health and has established a capable manager of the Environmental Water Reserve.

**Smarter Use of Irrigation Water**— Irrigation is easily the predominant user of water in Victoria and generates substantial and growing economic benefits. The white paper advocates an increase in the efficiency of irrigation systems across the state through such things as new technology, improvements to on-farm water use and a reduction in losses from distribution systems.

**Smarter Water Use in our Cities and Towns**—Victoria's cities and towns will have safe, secure and reliable supplies and provide for growing populations into the future, while managing the environment. Providing "fit for purpose" water supplies and the development of water sensitive urban design principles are desired outcomes from the white paper.

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## Shepparton Irrigation Region

The Shepparton Irrigation Region (SIR) is the irrigated region within the Goulburn Broken Catchment area. The SIR Catchment Strategy forms part of the Goulburn Broken Regional Catchment Strategy. It is a 30 year plan to improve the condition of the environment. It has been underway for 13 years.

The plan has evolved from the Shepparton Irrigation Region Land and Water Management Plan. Issues covered in the

plan include salinity, water quality, native biodiversity, riverine health, pest plant and animals and greenhouse.

Some of the achievements to date are as follows:

- 62% of the SIR is now covered by a Whole Farm Plan;
- 44,500ha of the SIR have been protected by expanding the drainage network;

- 68% of farms have a reuse system;
- 44,816ha of the SIR have been protected by the expansion of the ground water pumping network.

These works, along with a range of other works and activities are ongoing and will continue to protect and enhance the natural assets within in the Shepparton Irrigation Region.

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## Delivering Change in the Shepparton Irrigation Region.



Irrigation drainage line with adjacent reuse system.

The Shepparton Irrigation Region Implementation Committee (SIRIC) recently hosted a “Reporting Day “ activity held at the Department of Primary Industries, Tatura office. The focus of the day was on catchment partners delivering change in the Region.

Catchment partners responsible for delivering the main implementation programs within the Regional Catchment Strategy presented information relating to on-ground works and

extension activities currently underway in the region.

Presentations were made by officers from the Goulburn Broken Catchment Management Authority, Department of Primary Industries and Goulburn-Murray Water.

Topics covered included the following:

A partnership approach to catchment management;

The prioritisation of subsurface drainage works;

Water quality and surface water management;

Linking river health and the Shepparton Irrigation Region;

An evaluation of Whole Farm Planning in the Shepparton Irrigation Region;

Extension as a change mechanism;

Multicultural engagement; and

Performance standards for Natural Features of the Shepparton Irrigation Region.

## Incentives for Catchment Works

The GBCMA supports a range of financial incentives for catchment works in the Shepparton Irrigation Region.

Payment of the financial incentive is generally made to landowners after the satisfactory completion of works.

A series of detailed guidelines have been prepared and implemented with endorsement from the GBCMA Shepparton Irrigation Region

Implementation Committee.

These guidelines outline the steps in a process for working with the land owner and the administration of the particular incentive.

Incentive payments are available for a range of works including whole farm planning, drainage, exploratory drilling, groundwater pumping, tree growing, biodiversity protection, automatic irrigation and drainage

reuse systems, nutrient removal, waterway management and individual property outfall to natural waterways.

A brochure setting out the available incentives, the level of monetary assistance and the criteria for payment to be provided, is available from the Shepparton Office of the Goulburn Broken Catchment Management Authority by phoning (03) 5822 2288.

Incentive payments from the GBCMA are available for a range of catchment works in the Shepparton Irrigation Region.



A degraded wetland area.

## Know Your Jargon

**Adaptive management** - a management approach based upon “learning by doing”

**Ecosystems** - communities of life forms and their physical environment which interact.

**Habitat** - a type of environment in which particular animals or plants live and grow.

**Hydrology** - the study of water flows.

**Integrated catchment management** - a process which enables people to act together to manage the natural resources of their catchment.

**Salinity** - the concentration of salt in soil and water.

**Sustainability** - managing our natural resources in a way that maintains their environmental, economic, social and cultural values so that they can continue to be available in the long term.

**Wetland** - land flooded with temporary water and the community of plants and animals it supports.

## Community Praised for Drainage Efforts

In November 2004, the GBCMA hosted a celebration for the Byrneside Depression Drainage Group. This is a Community Group with approximately 175 participants and the celebration was about a decade of hard work resulting in the construction of twelve community drains in the Tatura, Harston and Byrneside districts providing protection for 3596ha.

The group has worked together to resolve their

differences and create a solution that achieves multiple benefits.

Benefits to be gained through providing drainage to catchments include:

Reducing the volume of water entering the watertable;

Stabilisation and improvements to agricultural production and sustainability; and

Improved health of wetlands and native vegetation.

The Byrneside Depression

Drainage Group is a perfect example of community coming together to achieve a goal for their catchment.

The community group first met at a public meeting 13 years ago. Works began with survey and design work for a system with two Goulburn-Murray Water primary drains and twenty five community drains within the larger Mosquito Depression System.



Members of the Byrneside Depression Drainage Group contemplating their achievements at the celebration.

## Securing our Water Future *Continued from page 1.*

### Pricing for Sustainability -

Water pricing should support the sustainable management of the resource we use.

Extracting water from rivers and aquifers for; drinking, watering the garden, flushing the toilet, supporting industry or agriculture all carry a cost to the environment. The white paper emphasises

the fact that this cost is not currently included in the price consumers pay for water.

### An Innovative and Accountable Water Sector-

Clearer roles for organizations, increased accountability and more innovative service delivery will drive a new approach to governance in the water

sector. Desirable and sustainable outcomes advocated in the white paper focus on the development of a capable, innovative and accountable water sector with policy makers, regulators and service providers all working towards the objectives and policies.

“The environmental quality of our water resources is under serious pressure, our water supply is limited and our demands are increasing”

*Fact Sheet 1-Securing Our Water Future*

## Evolution of the Whole Farm Plan Program

The first whole farm plans prepared in the Shepparton Irrigation Region focused on the irrigation system of the property. These initial plans were prepared as a result of the introduction of large earthmoving equipment in the construction of irrigation systems. Prior to this irrigation design work usually consisted of “paddock designs” and not the whole of the property.

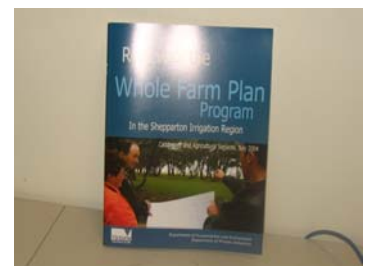
The majority of irrigation in the region is conducted using gravity as the means of movement of water. The use of large earthmoving equipment, including laser controlled machinery, meant that major changes could be made to the topography of the irrigated area.

It was obvious that these large scale changes needed to be planned to minimise any negative consequences and ensure that the changes were not

detrimental to any future works on the property or adjacent land.

Consequently much change has occurred since the first plans were developed and in general, natural features are now given much more importance and consideration.

Copies of the recent “Review of the Whole Farm Plan Program” are available from the GBCMA (03) 5822 2288



The Whole Farm Plan Program Review

## Municipal Infex

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Providing information  
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**[www.gbcma.vic.gov](http://www.gbcma.vic.gov)**

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### Facts

Total irrigated area in the Shepparton Irrigation Region is 316,853ha.

The Shepparton Irrigation Region Land and Water Management Plan has a target that all properties in the region would have a whole farm plan by the end of the 30year plan (2020).

To achieve this the required rate of uptake per year is 3.3%.

The average rate of uptake for the past 13 years was 3.7%.

150 to 200 whole farm plans are being prepared each year.

### Water Use – “fit for purpose”

Water supplied to our cities and towns is treated to drinking water standard and yet, in the average household, only about 5% of water is actually used in the kitchen for drinking and food preparation. It should also be noted that more than 50% of this water is used for flushing toilets and in the garden.

Using water that is “fit for purpose” means using high quality drinking water for drinking and other personal uses, but not necessarily for other purposes like toilet flushing, gardening and other non-drinking water uses. Alternative water resources readily available in our cities and towns but currently under-utilised include:

- **Rainwater-** captured through rainwater tanks
- **Greywater-** “sullage” from bathrooms and kitchens
- **Stormwater-** runoff from roads, footpaths, parks and gardens
- **Recycled water-** treating sewage effluent for reuse

### Whole Farm Planning

The preparation of whole farm plans was introduced as a component of the Shepparton Irrigation Region Land and Water Salinity Management Plan to encourage improved irrigation management as one of the activities landowners could undertake to manage high watertables and salinity problems.

Landowners are assisted by extension officers to consider the following aspects during the development of their plan. Farm management—type of enterprise and the management of stock,

machinery, fencing and water.

Engineering—channels, drainage, earth works and construction details.

Environment—natural features such as wetlands and remnant vegetation.

Agronomic—soil types crops pasture bay sizes, slopes and top soiling.

Financial—costing and how the development will be staged.

Whole farm plans are being prepared on both horticulture and broad acre (irrigation and dryland) properties within

the Shepparton Irrigation Region.

The planning process allows landowners to **understand** the improved natural resource management practices.

It identifies how they can **adapt** those practices for their property and the lifestyle of management that the landowner desires for the property

The plan provides them with the details required to do work on their property and provides the means to **adopt** improved practices.



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