

Northern Victoria Irrigation Renewal Project

What is the Northern Victoria Irrigation Renewal Project and how will it help save water?

Northern Victoria's irrigation system loses more than 800 billion litres on average a year through inefficient irrigation practices, evaporation and leakage – that's around twice the total amount of water used in Melbourne each year. Faced with prolonged drought and climate change, we simply cannot afford to let this continue. Families, businesses and farmers in every corner of the state have to change the way they manage and use water.

This is why *Our Water Our Future: The Next Stage of the Government's Water Plan (2007)* identifies projects and measures to diversify our water sources and use what we have more wisely.

The Victorian Government recognises that the Goulburn Murray region, the Food Bowl, is Australia's most important irrigation area and a vital part of the Victorian economy.

However, we continue to lose billions of litres of water in the Food Bowl through a leaky old irrigation system. Even over the last 15 years of dry conditions and severe drought, annual losses have averaged more than 700 billion litres. As part of the Water Plan, the Government announced \$1 billion for Stage 1 of the Northern Victoria Irrigation Renewal Project to recover up to 225 billion litres of lost water every year. The Stage 1 savings will be shared equally between irrigators, rivers and Melbourne.

The Commonwealth Government recently committed up to an additional \$1 billion to Stage 2. This investment is expected to recover a further 200 billion litres of water, to be shared equally between irrigators and the environment.

Project works will include lining and automating channels, building pipelines and installing new, modern metering technology.

How is Stage 1 being funded?

The Victorian Government will contribute \$600 million, Melbourne Water will contribute \$300 million, and Goulburn Murray Water will contribute \$100 million to Stage 1.

How is the project being delivered?

In December 2007, the Government created a new, state-owned entity called the Northern Victoria Irrigation Renewal Project (NVIRP) to deliver the modernisation project and achieve the targeted water savings.

A key responsibility of NVIRP is establishing strong links with irrigators and the community to develop a timetable for works and the realisation of water savings.

NVIRP will also collaborate with key regional agencies, including Goulburn-Murray Water, councils and Catchment Management Authorities, and engage the expertise needed to deliver the project.

The project commenced in winter 2008, with an early works program to automate the main trunks and carriers.

Is NVIRP a permanent entity?

NVIRP will exist for the duration of the project and have a strong presence in the region, with an office located in Shepparton.

NVIRP has an independent, skills-based board.

The appointed board members are:

Mr Richard Guy (Chair) is Chairman of Bendigo-based Crystal Industries Group. He is an engineer by training and plays a prominent role in various community and charitable organisations. He chaired the Bendigo Bank through a period of rapid growth and development including the conversion to Bank status in 1995. He retired from the Bendigo Bank Board in August 2006.

Mr Terry Francis has international and national experience in road and infrastructure engineering, project management and corporate banking as a former Chief Executive of the Bank of America in Australia. He is a Director of the Emergency Services Telecommunications Authority, Nylex, RMIT International and Boom Logistics. He is also Chairman of the Southern and Eastern Integrated Transport Authority.

Mr Peter McCamish has been a Goulburn Valley horticulturist for 34 years. He is a Director of SD Reid Holdings, a Tasmanian cherry grower and exporter, and a former Director of SPC Ardmona Ltd. He is a member of the Shepparton Irrigation Implementation Committee, the previous Food Bowl Modernisation Steering Committee and a Director of Water for Rivers.

Mr Geoff Akers a member of the previous Food Bowl Modernisation Steering Committee, Deputy Chair Victorian Farmers Federation Water Council, and Board member of Dairy Australia. Mr Akers has a Bachelor of Applied Science, Advanced Diploma of Agriculture and is a dairy farmer at Tallygaroopna.

Ms Miranda Douglas-Crane has more than 30 years of private and public sector experience in the transport infrastructure, automotive financial and services industries. Ms Douglas-Crane is currently Executive General Manager Operations with the RACV.

Mr Barry Steggall is the former State Deputy Leader of the National Party and Member for Swan Hill (1983 – 2002). Mr Steggall specialised in water, environment and food industry issues during his Parliamentary career. He is a member of the Victorian Water Trust Advisory Council and Chairman of the Groundwater Reference Committee.

Mr Neil Brennan is the Managing Director of Central Highlands Water; a position he has held for the past 10 years. Prior to that Mr Brennan held CEO positions at Western Water and Macedon Region Water Authorities. He has been employed in the Victorian Water Industry for some 25 years. He is currently a Director on the Board of the Electricity and Water Ombudsman Scheme Victoria (EWOV).

What area will NVIRP cover?

Modernisation will occur across the whole Goulburn-Murray Irrigation District, including the Campaspe Irrigation District.

What is Modernisation?

Why can't we leave the current irrigation system as it is?

Much of the current system is 80 years old, and most of the infrastructure is outdated, inefficient and costly to operate. The project will create the modern and efficient water delivery system required to meet the needs of farming in the 21st Century.

Have the on-ground works started?

The works program for Stage 1 commenced in winter 2008 with the automation of the main trunks and carriers and installation of 1000 automated gates.

How will irrigators be consulted?

Engaging irrigators and the community is critical to the project's success. Each customer will have the choice of how they are connected to the supply backbone, whether by new infrastructure or existing channels.

All irrigators will be consulted individually and provided with detailed information on their options to help them make the business decisions that best suit their needs. The framework for the connections program is being developed in consultation with Goulburn-Murray Water.

Water Savings

How have the water savings been quantified?

The Department of Sustainability and Environment has assessed the losses in the Goulburn-Murray Irrigation System by using Victoria's long-term water allocation records from the last 100 years. This modelling shows that on average, more than 800 billion litres of water has been lost each year through leaks, system inefficiencies and evaporation.

Combining this data with inflow patterns of the past 10 years of drought, modelling indicates that even with reduced irrigation diversions following climate change, losses will still generally range from 700 to 800 billion litres in most years. By improving the system's efficiency, at least 50 to 60 per cent of the total losses can be captured as savings.

How will the water savings be audited?

An independent audit process will check that savings in any year are calculated in accordance with the Victorian Government's Water Savings Protocol, based on the nature and the extent of the works completed.

The savings will be audited every year and publicly reported. The auditor will be appointed from a panel of independent auditors that will be formed in 2009.

Long-term assessments of water savings will be undertaken using system models that have been audited by the Murray-Darling Basin Commission.

How do we know the water really can be recovered?

We know the estimated savings are achievable based on the experience from modernisation works in the Macalister Irrigation District in Gippsland, Coleambally in New South Wales and Central Goulburn 1234, in the Goulburn Murray Irrigation District.

Channel Automation in the Macalister Irrigation District – approximately \$28 million

Automated supply channels to increase efficiency and improve service and on-demand delivery. Water savings captured to date have confirmed that the efficiency of the district can be improved to at least 85 per cent for its channels and 95 per cent for its pipelines.

Central Goulburn 1234 (CG1-4): Channel Upgrades and Farm Meters – approximately \$40 million

The work completed to date has shown that approximately half of the losses in the CG1234 Irrigation Area can be captured as water savings. The efficiency of the CG1-4 Irrigation Area is expected to improve to at least 85 per cent once the project is completed.

Coleambally Irrigation District (CID) Modernisation (New South Wales) – approximately \$31 million

The project has been running since 2002 and included the installation of channel automation technology along with operational changes such as running channels at their design levels. Savings in the order of 80 billion litres each year have been realised, and system efficiency is estimated to have improved from 75 per cent to almost 90 per cent.

The three examples above demonstrate that we can confidently predict an increase in irrigation delivery efficiency in the Goulburn Murray Irrigation District from 70 per cent to at least 85 per cent.

Allocation of water savings from Stage 1

Will this project affect current allocations?

This project will not affect annual allocations and irrigators' existing security.

Will water savings vary year by year?

Losses will be recovered every year where there is an irrigation allocation. There has not been a year to date where the Goulburn or Murray systems have not had an allocation.

The amount of savings will vary from year to year depending on the level of seasonal allocations, but will average 225 billion litres from the Stage 1 works.

How will this impact on the distribution of savings?

The new water shares will be subject to seasonal allocations, like existing water shares, and will vary from year to year. Melbourne's share of the savings will have the same security as the shares for irrigators and the environment'.

What are the benefits for farmers?

The modernisation program will be designed to meet the needs of modern irrigated agricultural industry in the 21st century. It will provide improved service delivery through shorter ordering times and more consistent flows for irrigators.

It will also ensure more water is in the system every year, captured as water savings, than would have been the case without the project.

The project will deliver a system that is efficient, responsive to modern on-farm needs and makes the most of available water in all seasons.

Modernisation will provide a competitive advantage for the Food Bowl region, and its communities and industries, underpinning the long-term viability of irrigated agriculture across northern Victoria.

Irrigators share of the water savings from Stage 1

Why is the Government replacing Dethridge wheels?

Victorian farmers are required to meet new Commonwealth metering standards that take effect in 2009. Dethridge wheels will not meet these new standards.

Victoria's northern irrigation system contains approximately 18,000 Dethridge wheels, and about 15,000 will be replaced at an approximate cost of \$250 to \$300 million. Without this project, all irrigators would be required to replace their Dethridge wheels at their own cost.

The new meters will be more reliable and can be operated remotely to improve service.

When will the Dethridge wheels be replaced?

Meters will be progressively replaced throughout the modernisation project.

How will irrigators be informed about the changes to the system?

The Northern Victorian Irrigation Renewal Project has a strong communication and consultation program to provide irrigators with up-to-date information on works and opportunities for improved on-farm operations.

How will irrigators' share of the water savings be distributed?

The savings will be allocated to irrigators in the Goulburn-Murray Irrigation District as additional entitlement at the completion of Stage 1. In the interim, savings will be distributed annually through allocation announcements.

Will irrigators be able to carry over water from their share of the savings?

Yes. The Victorian Government recently announced new carryover rules for irrigator water shares. The same rules will apply to water distributed from this project. Carryover will help irrigators to better manage their water resources.

Melbourne's share of the water savings from Stage 1

What is Melbourne's share of the water savings?

Melbourne's Bulk Entitlement will be capped at 75 billion litres per year. Its share of the savings will have the same level of security as the savings for irrigators and the environment.

Can additional water be purchased for Melbourne?

The Government or Melbourne Water cannot enter the temporary or permanent water market to purchase water. Melbourne Water will be able to sell into the temporary water market from its annual entitlement.

Will Melbourne receive 75 billion litres in 2010, before Stage 1 is complete and the savings verified?

Melbourne will be provided with 75 billion litres of water in 2010 from savings achieved from existing projects including Central Goulburn 1-4, the Shepparton Modernisation Project and, if necessary, transferring water from the Goulburn River water quality reserve.

After 2010, as water savings are progressively achieved from the Northern Victoria Irrigation Renewal Project, they will be shared equally between irrigators, the environment and Melbourne.

Why should Melbourne receive an equal share of the Stage 1 savings?

Just as the investment in this vital project is being shared between the Government, Melbourne Water and Goulburn Water, so too will the benefits be shared. Melbourne will pay for its share of water savings through Melbourne Water passing on to customers the cost of its \$300 million contribution to the irrigation modernisation project.

How will Melbourne's share of the water savings be delivered?

Melbourne's share of the water savings will be transferred via the 70-kilometre Sugarloaf Pipeline linking the Goulburn River to Sugarloaf Reservoir near Yarra Glen.

The pipeline (part of the expanded Victorian Water Grid) is being built and paid for by Melbourne Water at a cost of \$750 million. This funding also includes improving the reliability of the Winneke Treatment Plant at Sugarloaf Reservoir and is in addition to Melbourne Water's \$300 million contribution to the irrigation modernisation works.

Environment and Tourism

What is the environment's share of the savings?

The environment will receive one-third of the savings from Stage 1, or an average of 75 billion litres a year, which will be legally enshrined as an environmental entitlement.

Stage 2 of the project will secure a further 100 billion litres a year for the environment.

Who will administer the environment's share?

The Minister for the Environment will hold the separate environmental entitlement. Management plans will be prepared and submitted to the Minister, describing how the environment's share of the water will be used.

How will the environment's share of water savings be used?

The environment's share of the Stage 1 water savings is in addition to the Government's existing commitments to improve the health of the Murray and Snowy rivers. The savings will be used to improve tributary flows and priority wetlands in the Goulburn-Murray region.

A key component will be monitoring environmental outcomes, reporting to the community on the use of the water, and integrating environmental flows with river and wetland restoration and management programs.

Will the environment be able to carry over water?

The environmental entitlement needs to be managed so that environmental objectives can be achieved. In some cases carryover may be required to accumulate larger quantities of water to be released for wetland and floodplain watering. Carryover rules will be developed in consultation with stakeholders to protect third party interests.

Why is the environment not paying headwork charges for the entitlement?

The Victorian Government does not support headwork charges being applied to the environmental entitlement.

This is in line with current policy and is consistent with other water savings projects where environmental water has been recovered through Government investment, such as the Wimmera-Mallee Pipeline, Northern Mallee Pipeline and Channel Automation in the Macalister Irrigation District.

In these cases, existing users have paid the headwork charges and received the benefit of improved water delivery infrastructure and water savings.

What impact will the project have on Lake Eildon?

Lake Eildon will not have any less water in it as a result of this project. At times it will actually have more water as savings are stored, but not used.

Lake Eildon water levels are a direct reflection of water released for irrigation, including system losses, and a small component for environmental releases.

Lake Eildon will be on average 27 centimetres higher as a result of the irrigation modernisation savings being stored in the reservoir. This is because less water will need to be released from Lake Eildon to allow for losses in the system.

Recreational activities on and around Lake Eildon, such as fishing and boating, will continue unchanged.

What environmental approvals were required for the Sugarloaf Pipeline?

On 28 December 2007, the Minister for Planning announced that an Environment Effects Statement under the Environment Effects Act 1978 was not required for the Sugarloaf Pipeline Project. This was subject to the preparation of a Project Impact Assessment (PIA) that provides an integrated evaluation of potential impacts (including environmental, social, cultural and economic) and recommends ways to avoid, minimise, manage and monitor those impacts. For a copy, please go to www.sugarloafpipeline.com.au.

An independent expert advisory committee, appointed by the Minister for Planning, considered the PIA, public submissions and other relevant information and submitted recommendations to the Victorian Minister for Planning and the Commonwealth Minister for the Environment, Heritage and the Arts for their consideration.

On 6 August 2008, the Minister for Planning endorsed the preferred pipeline corridor subject to conditions to minimise environmental impacts. As part of these conditions, the Minister for Planning, in consultation with the Minister for Environment and Climate Change, has approved an Environmental Management Framework. Other conditions include the payment of a bond by Melbourne Water for reinstating any environmental disturbance as a result of construction works and the appointment of an external Environment Protection Authority-accredited environmental auditor to facilitate monitoring, auditing and reporting of the pipeline works.

On 12 September 2008, the Commonwealth Minister for the Environment, Heritage and the Arts also approved the project subject to Melbourne Water meeting other environmental conditions.

Further Information

Further information has been developed on specific components of the project. This can be accessed from www.nvirp.com.au.

Information regarding the Sugarloaf Pipeline is available from www.sugarloafpipeline.com.au or by phoning Melbourne Water on 131 722.

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