

## Connections Project benefits: what and how

### Securing our region's future

The Connections Project is the largest irrigation modernisation project in Australia. The Victorian and Australian governments are investing more than \$2 billion to create a sustainable future for productive agriculture in northern Victoria.

Above and beyond this, the Project will ensure the future prosperity of our region and our communities for generations to come.

It's a key part of Victoria's contribution to the Murray Darling Basin Plan. The water savings are provided to Environmental Water Holders who protect and improve our waterway health to support fish, vegetation and water quality.

When the Project is complete – and the channels that waste water through leakage, seepage and evaporation and meters are upgraded or rationalised – it's estimated an average annual water savings of 429GL will be achieved and irrigation water use efficiency will be increased from about 70 per cent to at least 85 per cent.

### Benefits for our farmers

- The Project is creating a world class irrigation network in the Goulburn-Murray Irrigation District (GMID).
- For farming businesses, this means we're automating water delivery across the region.
- Dethridge wheels and manual gate and channel systems are being replaced with automatic systems that allow farmers to get water when and where they need it.
- The upgraded system delivers water-use efficiency of 85 per cent or better, maximising the water available for productive agriculture.
- The Project is supporting some of Australia's most innovative farmers to leverage smarter on-farm irrigation systems and technology.

### Benefits for our communities

- The \$2 billion Project is one of the largest infrastructure projects in the country.
- For the environment, the Project delivers water savings to Environmental Water Holders who protect and improve our water health to support fish, vegetation and water quality.

- It's a significant contributor to job creation and investment in our region. It creates hundreds of jobs for local contractors, designers, manufacturers and other water related industries.
- More than this, ensuring the future of our farming businesses, ensures the future of our communities, which were built on region's agricultural prosperity.

### Benefits for our future

- The Project protects our region's status as a source of high security water, enhancing the sustainability of the entire region.
- Importantly it ensures confidence in the agricultural sector in GMID.
- For our communities and our region's future this attracts people and businesses who can invest because they're reassured about the security of the water delivery network.



**Farmer benefits:** Connections is automating water delivery across the GMID.

## Modernisation types

### Channel automation

To move from a manually operated channel system to a fully automated irrigation delivery system, we're creating a channel system with better measurement and management of water flows.

Automatic regulation gates are controlled by the Total Channel Control system, which was developed through research by Rubicon Systems Australia and Melbourne University.

This is implemented in many parts of the system. Flume Gates are also being installed to provide precision control and accurate flow measurement.

The gates control the flow of water onto the farm by varying their position according to upstream and downstream water levels and the farmer's flow requirements.

### Channel remediation

This involves remodelling channel banks, piping sections of channel and lining channels with clay or plastic to minimise water lost to the system. These works are targeted toward seepage and leakage water losses, which account for up to 45 per cent of overall losses when using an open channel system.

### Meter installation

Electronic flow meters are being installed to provide accurate electronic flow rate and volume measurement data to the main GMW office, via a radio system in most cases. These meters provide greater accuracy and are compliant with national metering standards, unlike the Dethridge wheel.

### Pipeline installation

As part of the Connections program, GMW replaces existing open channels with pipelines. These pipelines include gravity, pressurised options and in some cases a hybrid of both gravity and pressurised. The material used to date is HDPE (High Density Polyethylene) of varying wall thicknesses. Pipelines are often considered highly efficient and able to provide a high level of service.

About 70 per cent of our pipeline works are carried out during the winter works period each year.



**Channel remediation:** Channel bank remodelling and lining is minimising water lost to seepage and leakage.



**Channel automation:** This is delivering a more efficient system with better measurement and management of water flows.

February 2018, V3; DM#4510333

Date & version no; DM #



/ConnectionsGMID



@ConnectionsGMID

[www.connectionsproject.com.au](http://www.connectionsproject.com.au)