



IRRIGATION RESEARCH & EXTENSION COMMITTEE

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FOR IRRIGATION CROPPERS

**Advancing water use
efficiency in the
Coleambally Irrigation District**

Paper prepared by

MURRAY SMITH

Coleambally Irrigation Cooperative Ltd

Ph: 0427 208 613

Email: msmith@colyirr.com.au

IREC

C/- CSIRO Land and Water, Griffith

Private mail bag 3 Griffith NSW 2680

Tel: 02 69601550 **Fax:** 02 69601562 **Email:** irec@irec.org.au

The core objectives of the project are to increase the return per unit of applied water and reduce the environmental impact of irrigation in the project area through the roll out of precision irrigation systems that allow the irrigators to more precisely match water application to crop water needs. This project will build on CICL's past investment in Total Channel Control (TCC) technologies, including its existing telemetry system, which is capable of delivering broadband equivalent services to its customers.

The project will incorporate:

- soil moisture and climate sensors to monitor the water balance in their soils and crops and make decisions about when to irrigate and how much and at what rate to apply water to their fields; and
- control systems and storages to provide users with greater control over the rate and timing of irrigation applications.

The primary barriers to the uptake of precision irrigation in the Coleambally area (and in the irrigation sector in general) are the large up-front costs of equipping farms with precision irrigation equipment, the technological risks and complexity of the precision irrigation equipment and systems and constraints in the delivery system that mean it is not always possible to deliver water to irrigators to match crop requirements. CICL proposes to overcome these barriers by:

- providing a significant up-front cost subsidy for the deployment of the infrastructure for precision irrigation systems;
- avoiding the need for individual irrigators to acquire, deploy and maintain the technologies by offering a full service precision irrigation package that will be deployed and maintained by CICL and partner organisations;
- providing the near on-demand water supply service to the farm gate that is required in order to precisely match water; and most importantly,
- training and educating irrigators in the use of precision irrigation technologies and providing water balance and crop information in a user friendly format.

While the primary focus of the project is to improve on-farm water use efficiency, in pursuing this objective, recharge to groundwater tables and outflows to drainage from the irrigation district will both be significantly reduced with consequential environmental benefits from reduced salinity (due to rising watertable) and improved water quality. The project also aligns with the Land and Water Management Plan objectives for groundwater recharge control, salinity and water quality.

CICL is progressing arrangements with the National Water Commission to finalise funding provisions subject to ultimate approval by CICL's members.

Further information: www.colyirr.com.au