

# CIA Water Use Policy & Guidelines

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## 1. Introduction

- 1.1. Coleambally Irrigation Co-operative Limited (CICL) recognises the need to limit the environmental impacts of irrigation recharge on the shallow aquifer or water table.
- 1.2. CICL is legally obliged to monitor and report under the conditions of its Water Licence issued by the DPE Water. (Licence Number 40CA403808)
- 1.3. In order to satisfy these requirements, CICL has set the objective of limiting the area within the CIA where the water table is between 0-2 m of the surface, to below 10,000 ha.
- 1.4. The policy is applicable to all broad-acre farms within CIA. This policy does not apply to farms gazetted for purposes of horticulture or located within the Kerarbury Channel or West Coleambally Channel Water Management areas.
- 1.5. Changes in agricultural practices, farm ownership structure, crops, rainfall, significant reductions in the volume of available water and the results of the annual September groundwater analysis (piezometer readings) require consideration in this policy.

## 2. Principles

- 2.1. Water usage is to be considered on total farm irrigation intensity from all water sources (including surface and bore).
- 2.2. The acceptable Net Recharge limit for long-term sustainable irrigation in the CIA is deemed to be 100 ML per average-sized farm (220 ha). (This limit was derived from CSIRO studies on sustainable irrigation limits for the CIA in order to limit accessions to the water table.)
- 2.3. Rice production, using 'traditional methods', should generally only occur on land tested and classified as 'rice suitable'. There is a direct relationship between the area under rice production and the extent to which Net Recharge must be managed, but all farms need to be able to demonstrate that recharge is being managed effectively.
- 2.4. To avoid soil salinisation, a maximum level of irrigation intensity must be established from time to time, depending on the height of the water table.
- 2.5. Net Recharge is to be monitored through water table depths based on annual September groundwater analysis.

## 3. Policy

- 3.1. Water tables must not be within 2 m of the surface across an area of the CIA which is greater than 10,000 ha (based on September piezometer data gathered annually).
- 3.2. In the event this area is exceeded, the total farm water use permitted (including on-farm bores) may be reduced to a maximum of 5.5 ML/ha in the following irrigation season.
- 3.3. Total farm water use (including on-farm bores) should not exceed 7.2 ML/ha per irrigation season unless a customer has entered into a Water Use Agreement (Agreement) with CICL.

- 3.4. The CICAL Board (Board) has the prerogative to adjust the 7.2 ML/ha water use limit if it deems that environmental factors warrant the adjustment.
- 3.5. Rice production using 'traditional methods' should generally only occur on land tested and classified as 'rice suitable'.

#### **4. Procedure**

- 4.1. Groundwater will be monitored bi-annually by the reading of relevant piezometers and their conversion to a ground water status map indicating the area within various water table ranges.
- 4.2. Total farm use is reviewed during the year, with final use calculated after inclusion of surface and ground water extractions. (Ground water extractions are obtained from WaterNSW after the end of a season.)
- 4.3. Water use is evaluated against the agreed criteria to determine if any infringement has occurred.
- 4.4. Penalties will be applied in accordance with the penalties clause.

#### **5. Special considerations not requiring formal water use agreement**

##### ***5.1. Connected Farms***

- 5.1.1. Averaging across the total area of farms which are connected by a common on-farm supply or drainage system that has been inspected and found to be adequate by CICAL for the type and level of supply and drainage is permissible.
- 5.1.2. Water use can be averaged across the total area of the connected farms over five (5) consecutive irrigation seasons.
- 5.1.3. Customers do not require a Water Use Agreement to do so if they do not use CICAL assets to make the connection. All connections which use CICAL assets to make the connection require a CICAL licence agreement.

##### ***5.2. Rice soil suitability***

- 5.2.1. All farming areas in the CIA have been assessed for suitability for the growing of rice. The growing of rice according to 'traditional methods' requires an intense use of water. The growing of large amounts of rice on unsuitable soil is deemed to result in an unacceptable impact on the water table.
- 5.2.2. There is a direct relationship between the area under rice production and the extent to which Net Recharge must be managed. All farms need to be able to demonstrate that recharge is being managed effectively.
- 5.2.3. Rice production using 'traditional methods' must only occur on land tested and classified as 'rice suitable'. Traditional methods are those that result in ponding. Small amounts of rice may be grown on land classified as 'marginal' or 'unsuitable' in order to square off paddocks. This is however limited to 5 ha per paddock.
- 5.2.4. Any restriction on rice growing that is set in this regard on a farm is to apply in perpetuity (including after a change in ownership) unless a successful appeal against such classification is recorded.

#### **6. Special considerations requiring formal water use agreement for a period of five years (Term)**

- 6.1. Water Use Averaging Agreements.*** This option allows a customer to enter into an agreement with CICAL for averaging use over area and/or time to allow more

flexible management of water use. (In 5.1 above it is stated that an agreement is not required for **Connected Farms** that intend to average use over area. An agreement is however required where the **Connected Farms** intend to apply for averaging over time or with other unconnected farms.)

6.1.1. Where a customer is permitted to average across individual or connected farms, the average use across the farm/s cannot exceed an average 7.2 ML/ha over the term and cannot exceed 9 ML/ha per farm per irrigation season, however:

6.1.2. If the Board decides to adjust the Water Use Limit of 7.2 ML/ha:

6.1.2.1. The annual maximum water use limit of 9 ML/ha will be adjusted by the same proportion (percentage) in the same irrigation season as announced by the Board. Any unused portion cannot be carried over to the subsequent irrigation season/s; and

6.1.2.2. The average water use limit of 7.2 ML/ha over the term will be adjusted by the same magnitude as the Board's adjustment for any water used in the same irrigation season as announced by the Board. Only water that is used from an adjustment made by the Board will be added to the total water use limit for the Term.

6.1.3. Where a customer enters into an agreement to average on separate farms that are not connected, the averaging is by time and/or area i.e. the averaging is over the Term with each property being treated separately and the maximum water use permitted on each individual farm in any single irrigation season under the Term is 9 ML/ha.

6.1.4. Customers applying to enter into an agreement must gain neighbour consent to the agreement (although CICL has the authority to make the final determination and may disregard a neighbour's objection if it considers the objection is unreasonable).

6.1.5. Customers seeking to enter into an agreement must be prepared to be subjected to additional monitoring of their water usage, water quality and drainage if CICL considers those measures are warranted.

6.2. **Water use alternative use agreements.** This option allows a customer to enter into an agreement with CICL that exempts water use on an associated area for alternative industries where the impact on the water table is limited. (Examples of activities that may be considered under this section include: horticulture, permanent plantings and other non-farming industries).

6.2.1. To allow for flexibility CICL will enter into a water use agreement for the specified purpose where it can be demonstrated that the impact on the water table is limited.

6.2.2. Before entering into agreements CICL will consider the following for the activity:

6.2.2.1. Metering;

6.2.2.2. Use portion area;

6.2.2.3. Soil type;

6.2.2.4. EM31 results;

6.2.2.5. Irrigation methods;

6.2.2.6. Irrigation scheduling; and

6.2.2.7. Current water table conditions.

6.2.3. The customer must apply in writing, addressing the above pre-conditions to the satisfaction of CICL.

- 6.3. **Rice soil suitability agreements.** This option allows a customer to enter into an agreement with CICAL that permits the growing of rice in an area classified as 'unsuitable' or 'marginal' in excess of 5 ha limit per paddock for a period of 5 years.
- 6.3.1. To allow for flexibility CICAL will enter into a Rice soil suitability agreement for the specified purpose where it can be demonstrated that the impact on the water table is limited.
- 6.3.2. The following preconditions apply:
- 6.3.2.1. The total 'unsuitable' or 'marginal' area permitted for the growing of rice shall not exceed 10 ha per paddock or 20 ha per land holding (including any concession under 5. (ii)(iii) above).
  - 6.3.2.2. Customers applying to enter into an agreement must gain neighbour consent to the agreement (although CICAL has the authority to make the final determination and may disregard a neighbour's objection if it considers the objection is unreasonable).
  - 6.3.2.3. Customers seeking to enter into an agreement must be prepared to forfeit land classified as 'suitable' or 'marginal' in a ratio of three times the area applied for that is classified as 'unsuitable' and two times the area applied for 'marginal'.
  - 6.3.2.4. Customers seeking to enter into an agreement must be prepared to be subjected to additional monitoring of their water usage, water quality and drainage if CICAL considers those measures are warranted.
  - 6.3.2.5. Permission from all adjacent landholders must be obtained.
- 6.3.3. Before entering into agreements CICAL will consider the following for the activity:
- 6.3.3.1. Metering;
  - 6.3.3.2. Use portion area;
  - 6.3.3.3. Soil type;
  - 6.3.3.4. EM31 results; and
  - 6.3.3.5. Current water table conditions
- 6.3.4. The customer must apply in writing, addressing the above pre-conditions to the satisfaction of CICAL.

## **7. Termination of agreements**

- 7.1. Customers seeking to enter into an agreement acknowledge that CICAL has the right to terminate an agreement in the event that:
- 7.1.1. A customer breaches the conditions of the agreement and/or their obligations to CICAL (including as specified in CICAL's Rules);
  - 7.1.2. Groundwater monitoring establishes a significant increase in the water-table that is directly attributable to their activities;
  - 7.1.3. CICAL considers the agreement is adversely impacting neighbouring farms; and
  - 7.1.4. CICAL determines its high-water table 'trigger' has been, or is, in danger of being breached in the subsequent irrigation season.
- 7.2. Where an agreement is terminated because it is considered to have breached the conditions of the agreement and/or CICAL's Rules, the customer will be ineligible for a refund of fees paid in respect of the agreement. However, should CICAL terminate an agreement for reasons that are not attributable to the customer, they will be entitled to a prorated refund of the associated fees.

## 8. Penalties and appeal

- 8.1. Customers who appear to breach CICAL's irrigation intensity limits will be informed of the potential breach and invited to an interview with CICAL to explain their water usage and cropping activity. If it is established that a customer has breached the policy, CICAL may draw on the range of penalties specified in its rules.
- 8.2. Penalties for breaches of this Policy include:
  - 8.2.1. reductions in farm water usage limit up to two (2) times the breach;
  - 8.2.2. monetary fines (up to \$1,000);
  - 8.2.3. land retirement; and
  - 8.2.4. suspension of water supply.
- 8.3. The penalty for growing rice on 'unsuitable' soils in excess of the 5ha limit without the permission of CICAL is a reduction in overall farm water use intensity by 0.5ML per hectare of area breached applied to the following season. (For example if a farm grows rice on 8 ha of un-suitable rice soil the water use limit of 7.2ML/ha the following year would be reduced by 1.5ML/ha equaling 5.7ML/ha.)
- 8.4. If the customer disagrees with CICAL's assessment and actions in relation to a breach or an application, an appeal can be made firstly to the CEO, then to the Board.
- 8.5. Appeals relating to the soil suitability classification may include the taking of new core samples. If the sample confirms CICAL's classification, then the cost will be for the customer.
- 8.6. If the customer is not satisfied with the Board's decision, then the customer can request CICAL convene the Independent Anomalies Committee. If no resolution is reached, the customer has recourse under common law.

## 9. Policy revisions

- 9.1. This policy replaces the following policies:
  - 9.1.1. CICAL's CIA Water Use Policy & Guidelines 2014.
  - 9.1.2. CIA Water Use Policy 2013.
  - 9.1.3. CIA Net Recharge Policy 2010.
  - 9.1.4. Rice Environmental Policy.
- 9.2. The policy is administered by the GM Environmental Compliance.
- 9.3. The policy is to be reviewed annually.

<b>Date</b>	<b>Comment</b>
June 2019	Policy reviewed at the CERC Meeting
September 2019	Updated policy presented to the Board for approval
February 2023	Updated policy approved by the Board