

RECYCLED WATER USE IN THE AGRICULTURAL SECTOR



THE AGRICULTURAL INDUSTRY REPRESENTS THE GREATEST CONSUMER OF RECYCLED WATER IN AUSTRALIA

RECYCLED WATER HAS MANY BENEFITS HOWEVER CERTAIN PRECAUTIONS SHOULD BE TAKEN TO PROTECT ENVIRONMENTAL AND HUMAN HEALTH.

WHAT IS RECYCLED WATER?

Recycled water is wastewater that has been treated such that it is suitable for specific agricultural, industrial or residential applications.

HOW CAN RECYCLED WATER BE USED IN AGRICULTURE?

Depending on the level of treatment the uses of recycled water in the agricultural industry are almost limitless, however it is typically used for pasture, crop or fodder irrigation and shed or stockyard wash down.

WHY USE RECYCLED WATER?

The use of recycled water has a number of benefits including:

- Conserving drinking water supplies
- Easing stress on natural water bodies usually used for extracting irrigation water
- Recycled Water contains valuable nutrients reducing fertiliser requirements.
- Reduces discharge to the environment

IS RECYCLED WATER SAFE TO USE?

Yes, as long as it is used as intended it is safe for a wide range of applications. Recycled water is subject to an array of quality testing to ensure that it is fit for use.

HOW COMMON IS RECYCLED WATER USE?

Recycled Water is widely used across Australia as well as on an international level. Approximately 425GL (1GL = 1,000,000,000L) of recycled water is used across Australia with around 66% (280GL) used by the agricultural industry, primarily in the dairy farming, pasture irrigation and livestock sectors.

WHAT ARE THE POTENTIAL HAZARDS FOR LIVESTOCK?

Due to the nature of the source water used in the recycling process, there is the potential for pathogenic organisms to exist in recycled water. A majority of these organisms present little to no risk however some parasites and bacteria have the potential to severely affect the health of livestock, these include:

- *Taenia saginata* (responsible for beef measles);
- *Taenia solium* (affects pigs which may result in severe neurological disease within humans if undercooked meat is consumed); and
- *Mycobacterium paratuberculosis* (responsible for Johne's disease*)

*It should be noted that Johne's disease is not present in the Hunter region, however all Department of Primary Industries (DPI) requirements should be followed to prevent its establishment.



WHAT PRECAUTIONS SHOULD I TAKE WHEN USING RECYCLED WATER?

Depending on the level of treatment that recycled water receives, the onsite requirements may vary from site to site, and Hunter Water will advise you of any specific requirements that may be necessary. However some general precautions that will greatly reduce the risk to livestock, public health and the environment are listed below:

- Due to the severity of T.solium it is prohibited to use recycled water for fodder or drinking water for pigs;
- Grazing animals should be excluded from pasture until dry after irrigation;
- Fodder should be dried or ensiled;
- Recycled water should not be used for livestock drinking water, unless advised that it is acceptable by Hunter Water;
- Recycled water is not to be used for washing down milking machinery;
- Irrigation should match crop requirements - pooling should not occur;
- Recycled water contains valuable nutrients, this should be taken into account before fertilising;
- Public access should be restricted to fields while they are being irrigated;
- Buffer zones should be in place to public access points and spray drift should be minimised;
- While working with or around recycled water it is recommended that gloves be worn, cuts and abrasions should be covered and hands should be washed before eating, drinking or smoking;

- All requirements put in place by DPI surrounding recycled water use should be followed; and
- No Recycled water produced by Hunter Water is suitable for human consumption

CAN I USE RECYCLED FOR GROWING CROPS INTENDED FOR HUMAN CONSUMPTION?

Yes, however recycled water is treated to be fit for purpose and as such is not always suitable for all applications.

This is an important consideration when growing crops for human consumption, as water that is suitable for heavily processed crops such as wine grapes or cereals may not be suitable for growing salad crops.

It is important Hunter Water is consulted before using recycled water to irrigate food crops, to ensure that it has been treated to a sufficient level and that the appropriate onsite controls are in place.

WHERE CAN I GET MORE INFO ON RECYCLED WATER?

PLEASE FEEL FREE TO CONTACT HUNTER WATER DIRECTLY THROUGH VIA ITS CUSTOMER SERVICE CENTRE ON 1300 657 657 OR BY EMAIL AT ENQUIRIES@HUNTERWATER.COM.AU.

THE AUSTRALIAN GUIDELINES FOR WATER RECYCLING CAN BE VIEWED AT THE NATIONAL WATER QUALITY MANAGEMENT STRATEGY WEBSITE.

FOR GENERAL INFORMATION ON RECYCLED WATER AND ITS USE PLEASE REFER TO: WWW.RECYCLEDWATER.COM.AU

NSW DEPARTMENT OF HEALTH AND DEPARTMENT OF ENVIRONMENT, CLIMATE CHANGE AND WATER