Sustainable irrigation

Murraylands and Riverland

The values of water

Nowhere is water more precious than in South Australia, the driest state on the driest continent.

Water is a vital natural resource with many important values and uses. People need water for 'critical human needs' such as drinking, washing and food preparation.

Our natural environment relies on water for supporting native wildlife and sustaining important ecosystems such as wetlands and floodplains.

Water underpins First Nations culture and is needed to maintain the health of many culturally significant places, species and practices.

People also enjoy water for recreation and many communities rely on income from water-related tourism such as boating and fishing.

Of all users, irrigation uses a significant volume of water. Irrigation is the process of drawing water from rivers or underground aquifers to water crops and livestock.

Irrigation in the Murraylands and Riverland

In the Murraylands and Riverland landscape region irrigation is used to grow a range of produce including fruit, nuts, vegetables, cut flowers, and pasture for dairy cows. Irrigation is a significant driver of the regional economy and the products grown are consumed locally, across Australia, and around the world.

In 2020 the gross value of irrigated agricultural production (GVIAP) in the region exceeded $800 million (source ABARES).

Irrigation efficiency

As water is such a precious and limited resource, it is essential that irrigation is as efficient and productive as possible.

By optimising their efficiency, irrigators minimise the amount of water needed to produce crops and avoid a range of environmental impacts caused by over-watering (eg salinisation of groundwater, floodplains and rivers).

The three S's

To be as efficient with water as possible, an understanding of the three S's is critical. These are:

Soil - understanding the soils being irrigated - particularly how much water they can hold.

System - understanding the irrigation system being used including the application rate.

Scheduling - understanding when to irrigate and for how long.

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The Murraylands and Riverland Landscape Board acknowledges the First Peoples of the lands and waters we live and work upon. We pay our respects to their Elders past, present and emerging and acknowledge and respect their deep spiritual and cultural connection to Country.

LANDSCAPE SOUTH AUSTRALIA MURRAYLANDS AND RIVERLAND

Returning water to the environment

Not only does improving irrigation efficiency minimise salinisation of the floodplain and river, it can also allow additional water to be provided to the environment.

Many irrigators have participated in programs that increase their irrigation efficiency and a share of the water that is saved through their improved irrigation practices has been returned to the Australian Government as environmental water.

Environmental water is then used for a range of purposes such as watering wetlands, raising weir pool levels, operating fish ways, supporting the health of the Coorong, and helping to keep the Murray Mouth open.

By working in partnership with First Nations this water can also be used to protect and maintain their important cultural values.

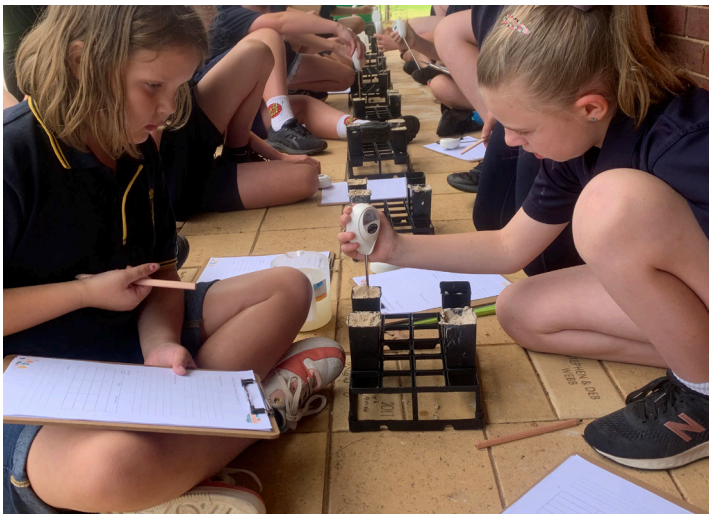
Sustainable irrigation in schools

There are a range of ways teachers and students from all year levels can learn about sustainable irrigation. It has links across the curriculum and there are many practical activities that can be undertaken in the school, at home, or even out at a local irrigation property.

Technology and innovation are at the forefront of sustainable irrigation practices and as such there are many exciting and rewarding career paths and opportunities both on-farm and off-farm that students may wish to find out about and pursue.

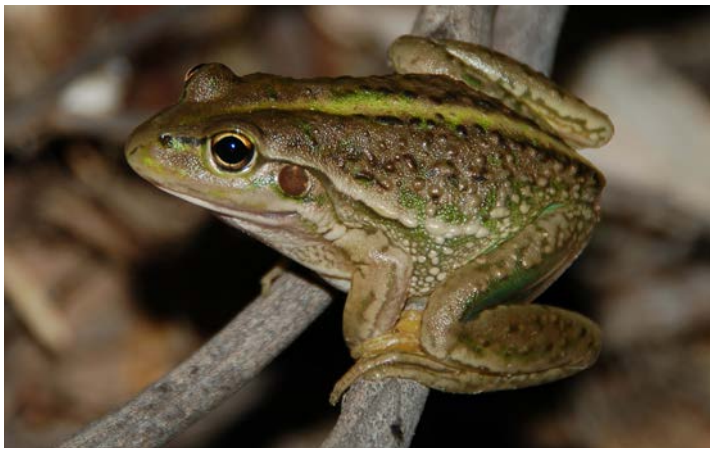
Sustainably managing our water resources is one of our biggest challenges particularly as we head into a hotter and drier climate.

It is important to teach young people about this fascinating and complex topic. Education program staff may be able to assist with resources, guest speakers and facilitation of excursions.



Young Environmental Leaders (YEL) students measuring soil moisture content as part of a water-themed forum.

Irrigators undertaking training in soils.



Environmental water enables flooding of wetlands supporting species such as the vulnerable southern bell frog. Image: Irene Wegener.

River Murray Youth Council (RMYC) students learning about water management in our wetlands.

For more information

landscape.sa.gov.au/mr/education

landscape.sa.gov.au/mr

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