



**Bacchus Marsh Irrigation District** 

## From the creek, to the crop and onto your plate.



Let's learn about our local irrigation system, and why it is so important to our everyday lives.





## What is irrigation

Irrigation is the 'controlled' way of feeding crops, plants, fruits, and vegetables.

Unlike rain, which can be unpredictable, irrigation allows us to control when and how much water is available. Irrigation is so important in Australia because we rely on it for so much food and fibre production.

Rice, cotton, fruit and nuts use the most irrigation water. Other major water users are; sugar cane, grapevines, vegetables, as well as pastures and cereals for grazing animals.

Australian farmers use **5.7 million** megalitres of water per year to water their crops and pastures, with **1.5 million** hectares of agricultural land under irrigation (ABS, 2021).





Rice

Cotton







Fruit

Nuts



## Bacchus Marsh Irrigation District

Water is crucial for all of us to live. As we know, when it rains, water droplets fall high from the sky and onto the early. Some droplets may land in creeks, some may land in the ocean, and some may land on your head. But it's harder than you think to catch the water ourselves.

This is where **Southern Rural Water** comes into play; they supply the systems that are responsible for capturing water and storing it in the Pykes Creek Reservoir, and then supplying water to the Bacchus Marsh region fruit and vegetable growers. This is so you can grow up big and strong.

So let's go ahead and learn a bit about the history of irrigation in Bacchus Marsh.







## The history of Bacchus Marsh Irrigation District

Bacchus Marsh is located 50kms northwest of Melbourne and is an agricultural town first developed in the 1860s.

The area was popular among farming families who bought the land and started work in their new homes.

Originally, the area was known for dairy farming, with the availability of wide-open pastures perfect for cattle grazing.

The development of irrigation from 1960 allowed farmers to begin planting orchards. In fact, produce from orchards still remains a key crop - even today!









## The history of Bacchus Marsh Irrigation District







Pipe-lining and upgrades began across the districts.

Early 1960s

1911 Pykes Creek Reservoir completed. .....So how does our irrigation system work today? Let's find out!



## How water is supplied today

Today, irrigation water is supplied to **Bacchus Marsh** via a weir on the Werribee River, which diverts water through a tunnel and Myers Creek to Pykes Creek Reservoir.

It is then released into the Werribee River, where a second weir directs the water through pump stations and into the remainder of the Bacchus Marsh District.

**Bacchus Marsh** uses gravity to transfer water to the community. This means that the system relies on there being enough water in the reservoir upstream to travel down (with the help of gravity) through pipes to customers.

When customers order their water from **Southern Rural Water**, it is delivered via a complex series of check metres, regulators and valves to ensure the right amount of water reaches the right customer.







### Pykes Creek



## What is produced in Bacchus Marsh?

Believe it or not, Bacchus Marsh is a major contributor to the production of fruits, vegetables, grains and cereals across the foodbowl.

Bacchus Marsh Fast Facts: Of the foodbowl's total production, Bacchus Marsh produces:

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Pork	13%	11%	8%	4%	4%
	pigs	cereal, grains and oil crops	legumes	fruit	shee









## Melbourne's 'Foodbowl'

Did you know?

Bacchus Marsh is located in what is sometimes called the Melbourne 'foodbowl'. Melbourne's foodbowl encompasses thriving agricultural areas on the outskirts of the city.

The 'inner' foodbowl is the metropolitan area of Greater Melbourne, and the 'outer' foodbowl includes regions such as Bacchus Marsh and Baw Baw Shire.

The foodbowl produces a wide variety of fresh fruit, vegetables, eggs, poultry, beef, lamb, pork and dairy. In fact, Melbourne's foodbowl produces almost half of the vegetables grown in Victoria.









## Water for community health and nutrition

The food that ends up on our plate has quite a journey when you really think about it.

- A capsicum is planted and grown from a tiny seed...
- Irrigation allows us to properly water the capsicum, so it has the best potential to grow big, healthy, and flavoursome.
- It is then picked by farmers when it's ripe and;
- Delivered to fruit and vegetable markets and supermarkets where it can be purchased for us to eat











# Water for community health and nutrition

Fresh fruits and vegetables eaten every day are so beneficial for our health - with all of the essential vitamins, minerals and dietary fibre to help us live long, healthy lives, not to mention the superhero-like strength we get from eating all of our greens. Southern Rural Water helps our communities have access to reliable water every day, helping our regions to thrive.











# What is the difference between a weir and a dam?

A weir is a small steel or concrete barrier that is built across a creek or river. Weirs are used to help control the flow of water, and are able to slowly release water downstream.







A dam is similar to a weir, however, they are much larger in size. They are mainly used for water storage over long periods and to stop catchments from flooding.



# Can you identify which of the images below are dams, and which are weirs?













## Different types of on farm irrigation

Can you match the system to its correct description?

### Drip irrigation

A drip irrigation system allows water to slowly drip from narrow tubes to either the roots of plants or onto the soil.

### **Centre Pivot**

A centre pivot irrigation system is a portable structure with sprinklers that can rotate around a central pivot point. The structure is connected to a water supply.

### Sprinkler

A sprinkler irrigation system allows water to flow through a series of pipes which then spray the water over the desired area.

### **Furrow Irrigation Systems**

A furrow irrigation system is a type of surface irrigation where long channels are created and filled with water. Crops are grown on the small ridges between the channels





