

Garden Strategies



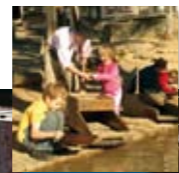
### Gardening Strategies

By clustering valuable plants in specific gardens and removing non-essential plants, Sovereign Hill has prioritised its water requirements. Mulching and a focus on improving soil condition have also reduced our reliance on water as an input.

### Water – more precious than gold!

The hunger for gold meant that Ballarat was built upon a rich mineral resource – and, initially, the thirst for gold outweighed the staple need for water. But, very quickly, the diggers realised water was directly related to their continued success on the diggings. Not only was it essential for human consumption, and for stock and horses – it was also used for the extraction of gold. In this inland city, far from coastal ports and fresh water supplies, water did indeed become more precious than gold!

In dealing with the current water shortage crisis, Sovereign Hill is active in developing water-saving initiatives. This has involved adapting some of the old techniques as well as embracing new ones.



Water – more precious than gold!



## Sovereign Hill's Smart Water Project

Water – more precious than gold!



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Smart Water Fund  
Our Water Our Future

Smart Water Project





*Adapting the Old*

## Adapting the Old

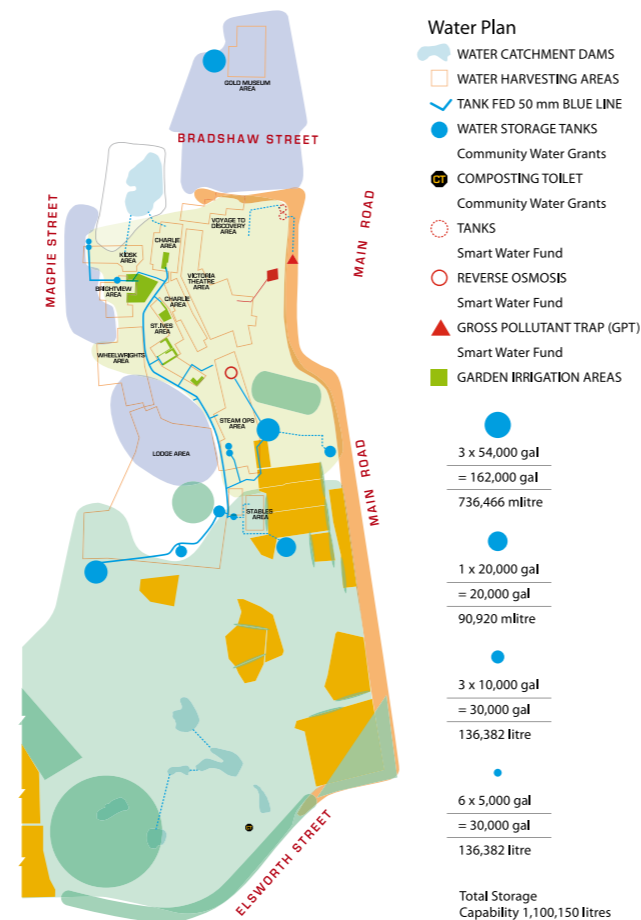
### Water Collection Tanks

Until 1862, no permanent water catchment existed in Ballarat. During the latter part of the 1850s, many houses had water tanks, which collected rainwater from guttering. Water butts (barrels) were also used to collect water.



To reduce our reliance on mains water, Sovereign Hill has installed tanks to store water collected from our rooflines so that it can be used for our heritage gardens, steam operations and horses.

With funding from the Federal Government's Community Water Grants scheme, Sovereign Hill has harnessed rainwater catchment from existing rooflines. This reclaimed water is then channelled into a series of tanks joined by a gravity-fed underground water pipe. The system has the capacity to hold approximately 1 mega litre of water, which is comparable to a million 1 litre cartons of milk.



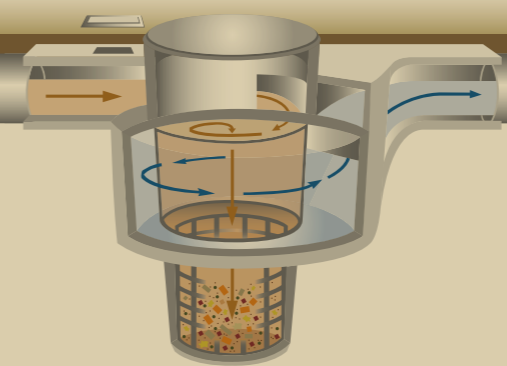
*Embracing the New!*

## Embracing the New

With monies from the Victorian Government's Smart Water Fund, Sovereign Hill has embraced new technologies as part of its water-saving strategies.

### Sediment Separation

Soon, nothing will go to waste! Later this year, storm water from Sovereign Hill's roads and footpaths will no longer be lost to drains outside Sovereign Hill or through evaporation. This precious water will be channelled into drains that lead to a gross pollutant trap (GPT) designed by CDST<sup>TM</sup>. This trap will separate and remove pollutants like mud, gravel and rubbish from the water so it can be stored for further use.



## Reverse Osmosis

Water used in our steam operations needs to be relatively free of impurities such as calcium, magnesium and silica. If these impurities are left to build up in the boilers, they form a hard scale, which decreases the efficiency of the boilers and increases the volume of water required to operate them.

By installing a reverse osmosis system, we can filter out the impurities from mains water before it enters the boilers, thereby maintaining optimum efficiency in the steam production process. The water that contains the impurities can then be saved for dust suppression on our roads and for processing gold-bearing quartz in the Battery House. Before the reverse osmosis system was installed, this water was wasted because it could not be recycled without further treatment, and this was beyond our means.



*Reverse Osmosis*