

# Your Local Water Snapshot



Each suburb in the municipality is unique, and presents different challenges and opportunities for sustainable water management. Understanding your local water and pollutant balance is the first step in being able to improve local water management. Considering issues and opportunities for water sensitive urban design is the second step in planning for a water sensitive city.

## Why do we need to manage our water resources?

Water is a key ingredient for a liveable and sustainable city. After 10 consecutive years of drought, our water supplies are at all time lows. Our city's iconic Elwood Canal, Albert Park Lake and Port Phillip Bay are affected by stormwater that carries pollutants, such as litter, nutrients, and sediments, impacting on the biodiversity and recreational value of these spaces. The city's population is growing, which leads to an increase in the demand for mains water.

To better meet these challenges, the City of Port Phillip is planning to become a water sensitive city.

## About Ripponlea

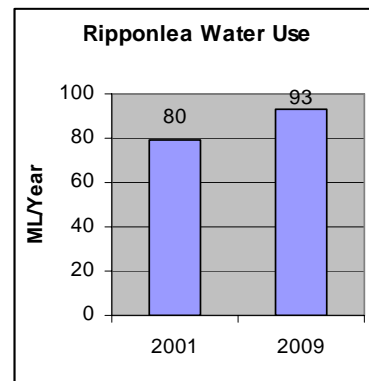
The suburb of Ripponlea, is approximately 29 ha in size, comprising medium density residential property. If you live in Ripponlea, your closest recreational areas are the St Kilda Botanical Gardens and Elwood Park. Your stormwater drains directly to the bay and to the Elster Creek.

## Your local water balance

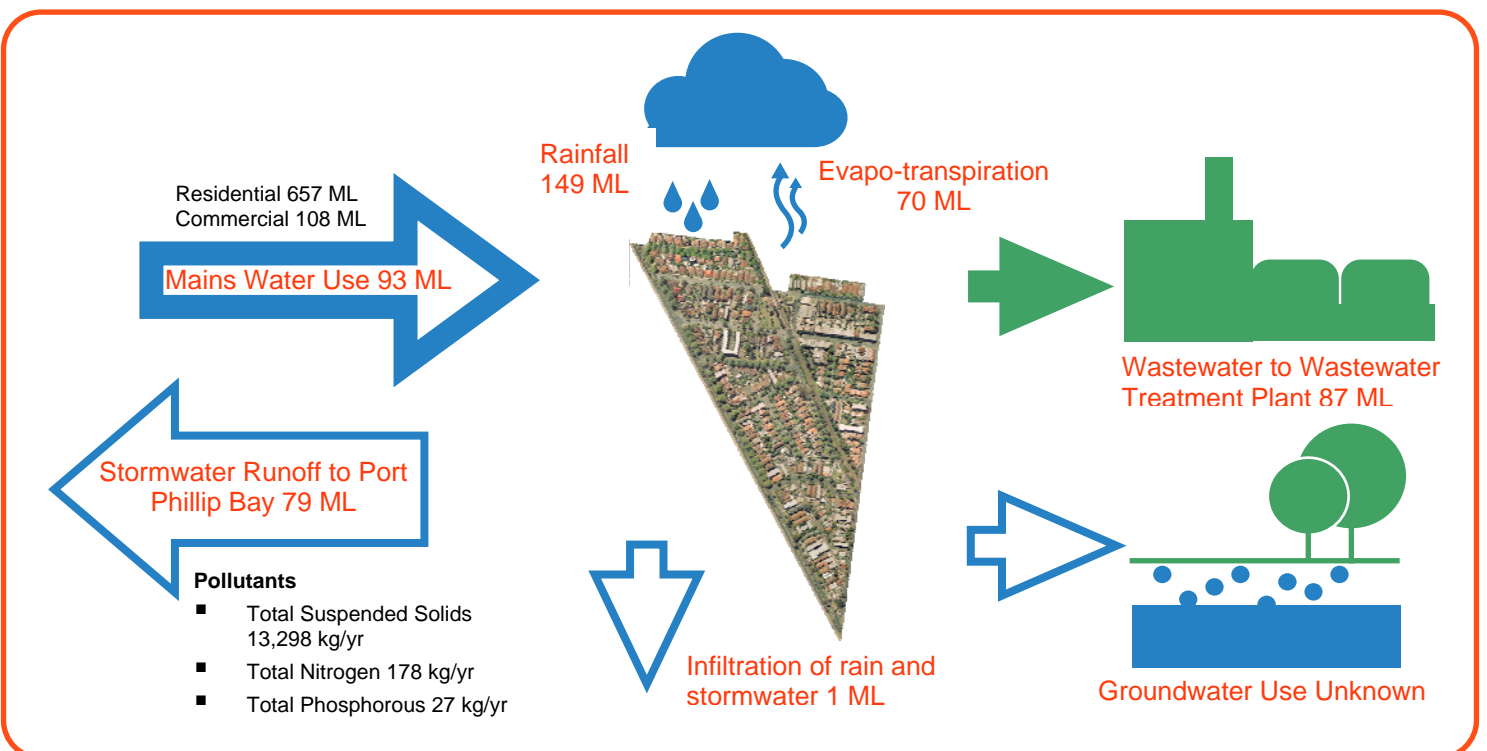
In 2008/09, Ripponlea used 93 ML of water. Of this, only 5% was used by commercial and industrial users and 95% by residents. Since 2001, Ripponlea has increased its water use by just over 16%. A large amount of mains water is discharged to sewer as wastewater, with approximately 87 ML (over 90%) leaving the municipality to be treated at the wastewater treatment plant.

More rainfall falls on Albert Park than the water consumed, with approximately 149 ML of rainfall a year. Of this, almost half returns to the atmosphere as evaporation, and 79 ML runs to our drains and the bay as stormwater runoff.

Groundwater use is unknown. Despite its poor quality, it is being increasingly used for private garden watering.



RIPPONLEA



## Your local pollutant balance

Stormwater can carry a lot of pollutants, including solids (such as grit and tyre residue), nutrients (such as nitrogen and phosphates), litter, oil and heavy metals. This is generated by hard surfaces such as roads and roofs. With approximately 64% of Ripponlea's surfaces being hard and non absorbent, it is estimated that stormwater generated in Ripponlea is carrying approximately 13,300 kg of suspended solids, 178 kg of nitrogen and 27 kg of phosphorous to the Bay each year.

## Where can we capture and treat water?

Water can be captured or harvested from hard surfaces such as roads, roofs and carparks. These areas can be measured to determine how much runoff is available for capture. In total:

- Just under one third (29%) of Ripponlea is residential and commercial roofs which could be suitable for rainwater harvesting. It is estimated that this area generates approximately 42% of stormwater flows in Ripponlea.
- 25% of Ripponlea is roads which could provide opportunities for stormwater harvesting and treatment. It is estimated that this area generates approximately 40% of stormwater flows in Ripponlea.
- 11% of Ripponlea is additional hard space such as car parks also suitable for harvesting and treatment. It is estimated that this area generates approximately 18% of stormwater flows in Ripponlea.

This water can be used for watering of parks and gardens, toilet flushing and passive irrigation. It can also be treated to remove pollutants generated by these surfaces.

## Current water sensitive urban design projects

A number of water sensitive urban design opportunities exist in Ripponlea. Proposed projects are detailed in the map below.



## How was the local water and pollutant balance prepared?

The City of Port Phillip has 20 subcatchments draining directly into Port Phillip Bay, Elster Creek and/or the Yarra River. In 2009, council modelled the inputs and outputs to these catchments for the purposes of understanding localised and municipal subcatchment issues and opportunities. This information is contained in Council's Water Plan. The results have been used to prepare this local water and pollutant balance.

## How can I use this information?

Thinking about your local water and pollutant balance, is there anything you can do to save water and reduce pollutants flowing to the Bay?

Thinking about your local area, can you identify any issues or opportunities that could benefit from water sensitive urban design, for example:

- Roofs and water catchments for capturing water
- Opportunities for water efficiency in public and private spaces
- Stormwater flows that could be treated or captured
- Users that could benefit from harvested water
- Opportunities for rooftop and vertical gardens

