

# 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.

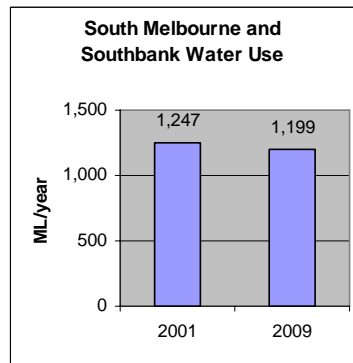
To better meet these challenges, the City of Port Phillip is planning to become a water sensitive city.

## About South Melbourne and Southbank

The suburbs of South Melbourne and Southbank are approximately 240 ha in size, comprising high density residential and commercial property and roads that channel traffic into the city. If you live in South Melbourne and Southbank, your closest recreational areas are your local reserves, with significant open space available just outside suburb boundaries. Your stormwater drains directly to the bay and/or the Yarra river.

## Your local water balance

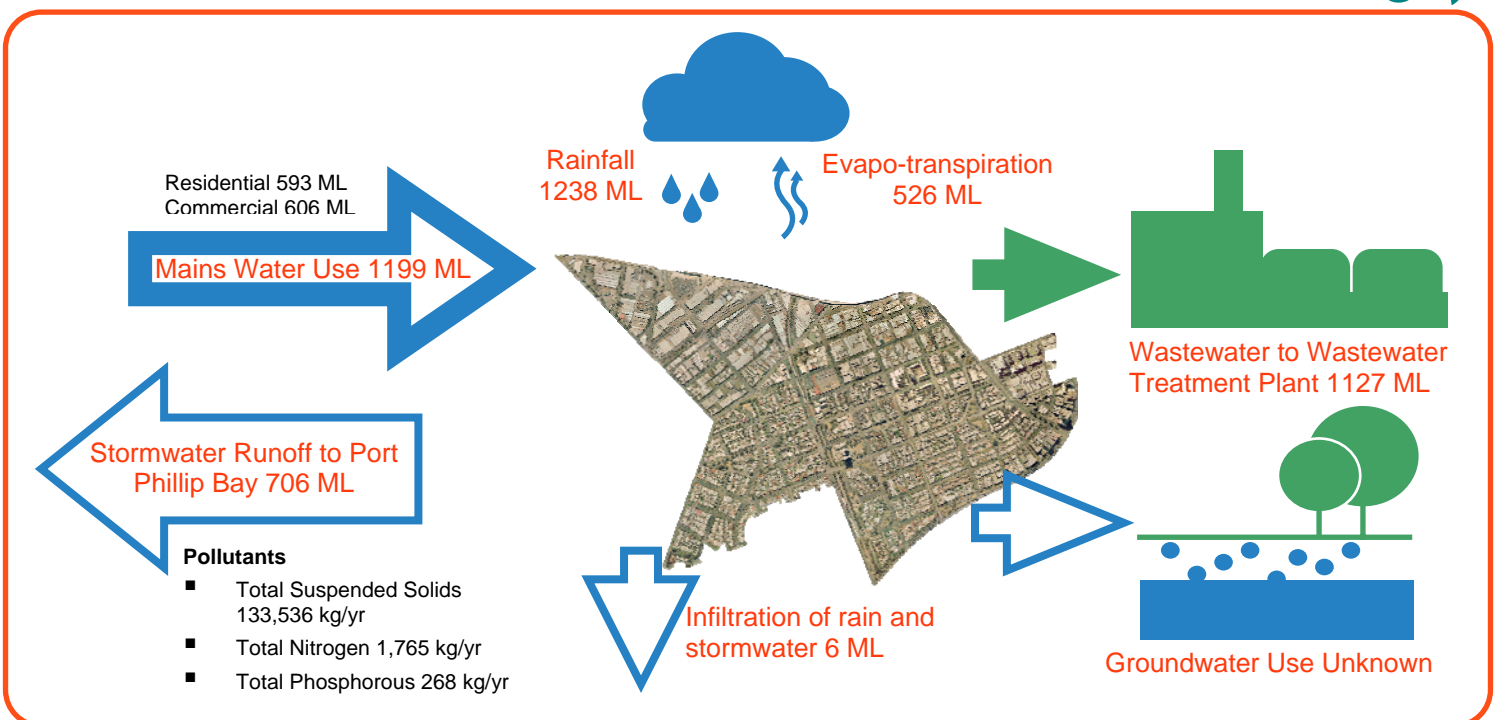
In 2008/09, South Melbourne and Southbank used approximately 1200 ML of water. Of this, 51% was used by commercial and industrial users and 49% by residents. Since 2001, South Melbourne and Southbank have achieved mains water savings of almost 4%. A large amount of mains water is discharged to sewer as wastewater, with approximately 1,127 ML (over 90%) leaving the municipality to be treated at the wastewater treatment plant.



More rainfall falls on South Melbourne and Southbank than the water consumed, with approximately 1,238 ML of rainfall a year. Of this, almost half returns to the atmosphere as evaporation, and 706 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.

SOUTHBANK  
SOUTH MELBOURNE



## 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 71% of South Melbourne and Southbank's surfaces being hard and non absorbent, it is estimated that stormwater generated in South Melbourne and Southbank is carrying almost 134,000 kg of suspended solids, 1,765 kg of nitrogen and 268 kg of phosphorous to the Bay each year.

## Where can we capture and treat water?

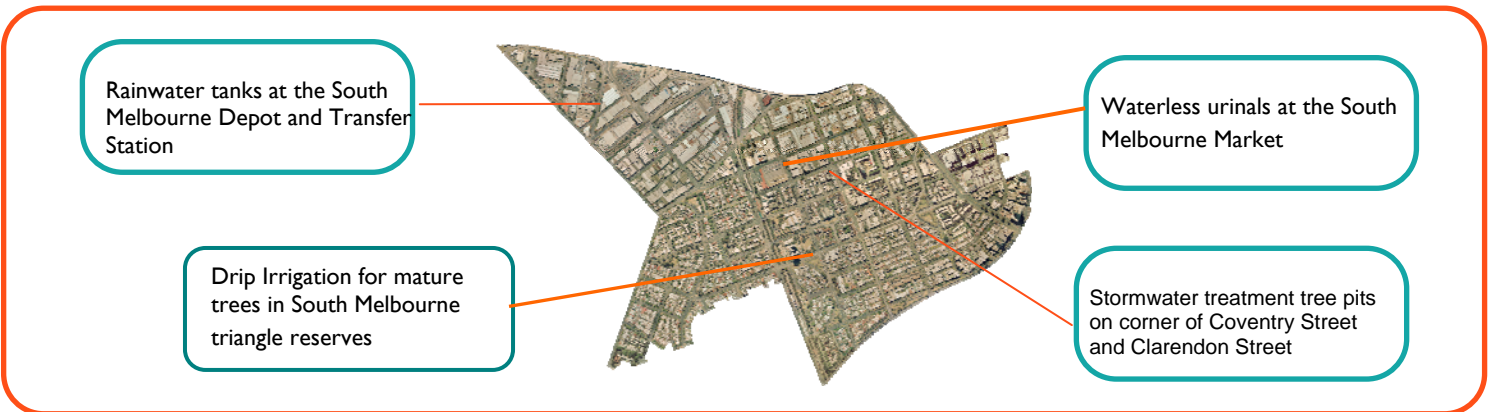
Water can be captured or harvested from hard surfaces such as roads, roofs and carparks. These areas can be measured to determine how much runoff is available for capture. In total:

- 30% of South Melbourne and Southbank is residential and commercial roofs which could be suitable for rainwater harvesting. It is estimated that this area generates approximately 43% of stormwater flows in South Melbourne and Southbank.
- 27% of South Melbourne and Southbank is roads which could provide opportunities for stormwater harvesting and treatment. It is estimated that this area generates approximately 38% of stormwater flows in South Melbourne and Southbank.
- 13% of South Melbourne and Southbank 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 South Melbourne and Southbank.

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 projects have already been installed in South Melbourne and Southbank. These 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

