

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 St Kilda Rd and Windsor

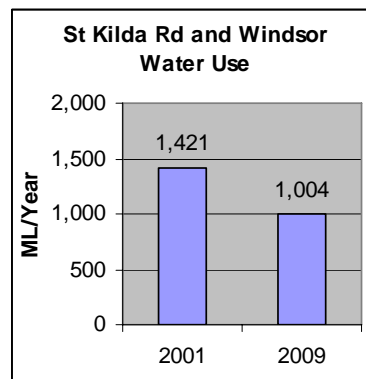
The suburbs of Melbourne (St Kilda Rd) and Windsor are approximately 67 ha in size, comprising higher density residential and commercial property. If you live in Windsor or St Kilda Rd, your closest recreational areas are neighbouring Albert Park and Alma Park. Your stormwater drains directly to the bay and/or to the Elster Creek.

Your local water balance

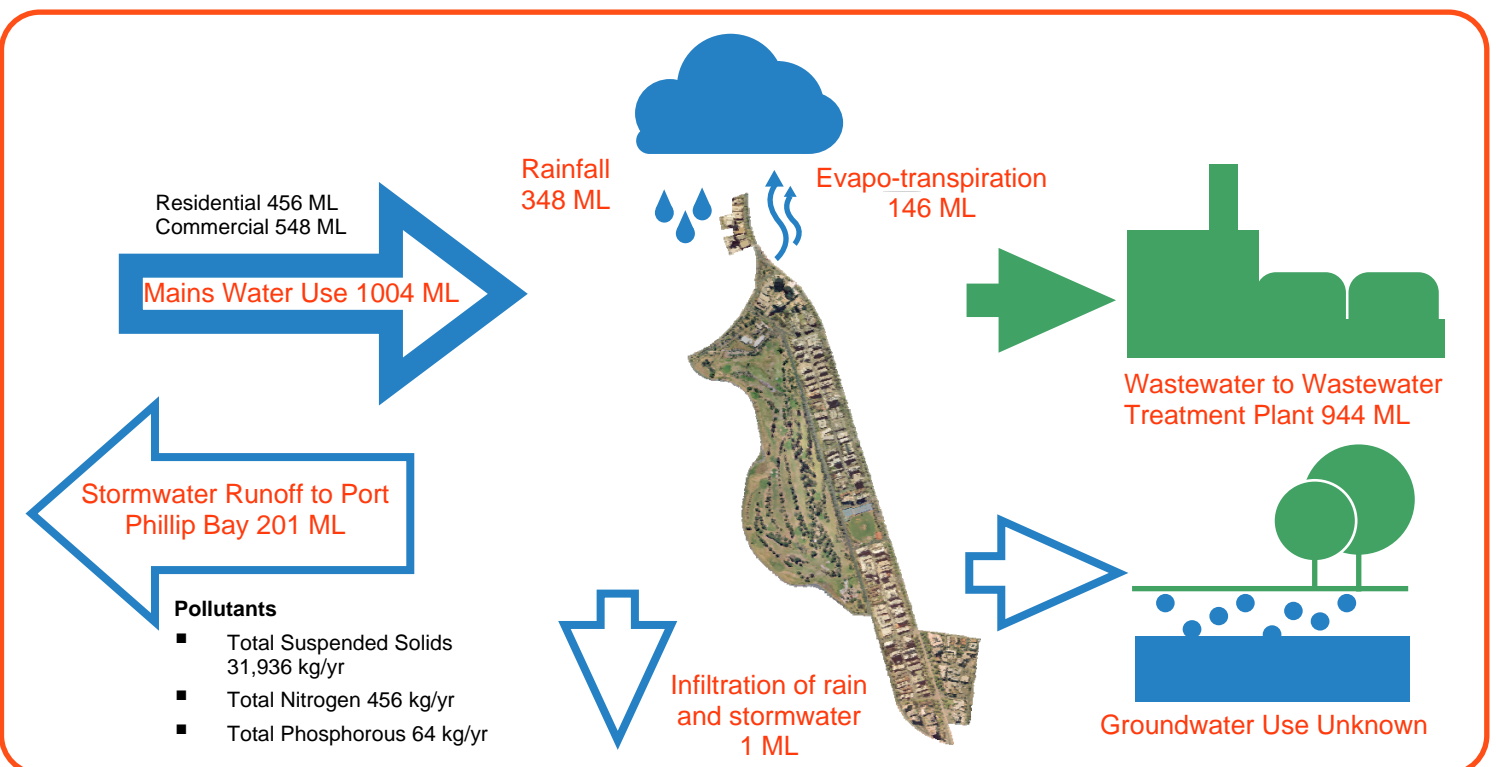
In 2008/09, St Kilda Rd and Windsor used 1004 ML of water. Of this, 55% was used by commercial and industrial users and 45% by residents. Since 2001, St Kilda Rd and Windsor have achieved mains water savings of almost 30%. A large amount of mains water is discharged to sewers as wastewater, with approximately 944 ML (over 90%) leaving the municipality to be treated at the wastewater treatment plant.

More rainfall falls on St Kilda East than the water consumed, with approximately 348 ML of rainfall a year. Of this, approximately 40% returns to the atmosphere as evaporation, and 201 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.



ST KILDA RD
WINDSOR



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 72% of St Kilda Rd and Windsor's surfaces being hard and non absorbent, it is estimated that stormwater generated in St Kilda Rd and Windsor are carrying almost 32,000 kg of suspended solids, 456 kg of nitrogen and 64 kg of phosphorous to the Bay each year.

Where can we capture and treat water?

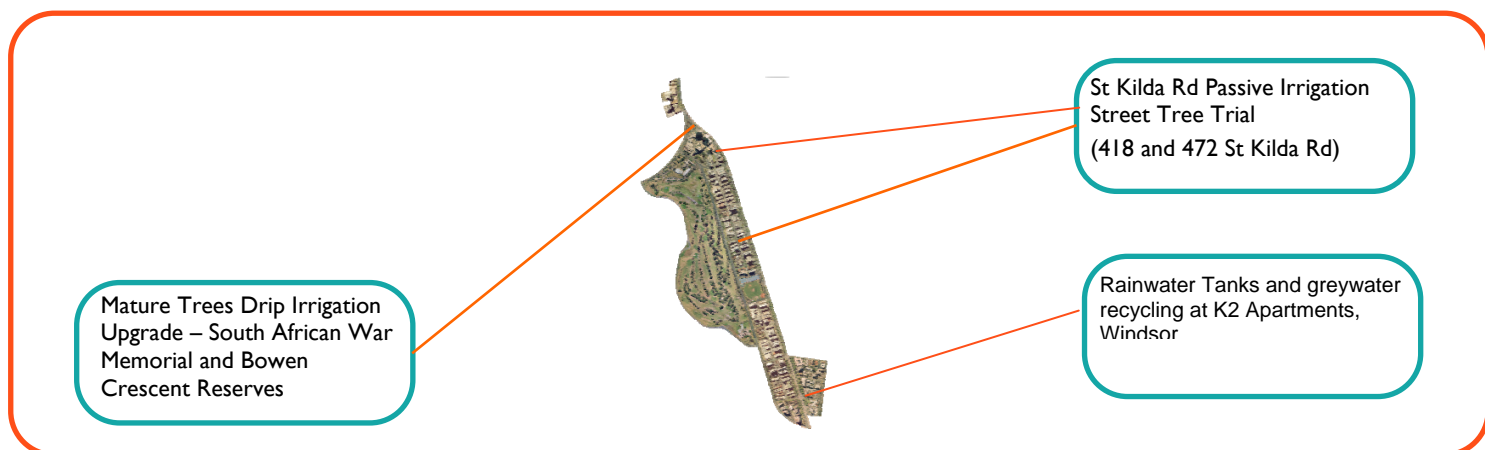
Water can be captured or harvested from hard surfaces such as roads, roofs and carparks. These areas can be measured to determine how much runoff is available for capture. In total:

- 34% of St Kilda Rd and Windsor are residential and commercial roofs which could be suitable for rainwater harvesting. It is estimated that this area generates approximately 45% of stormwater flows in St Kilda Rd and Windsor.
- 25% of St Kilda Rd and Windsor are roads which could provide opportunities for stormwater harvesting and treatment. It is estimated that this area generates approximately 35% of stormwater flows in St Kilda Rd and Windsor.
- 13% of St Kilda Rd and Windsor are additional hard space such as car parks also suitable for harvesting and treatment. It is estimated that this area generates approximately 19% of stormwater flows in St Kilda Rd and Windsor.

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 St Kilda Rd and Windsor. 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

