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WATER

RAINWATER
HARVESTING IN THE HEART OF SYDNEY

Sydney Harbour Foreshore Authority becomes a leader in water conservation

CASE STUDY

Harbour Foreshore Authority

DARLING HARBOUR

SYDNEY HARBOUR FORESHORE AUTHORITY

NEW SOUTH WALES

One of the goals for Sydney Harbour Foreshore Authority is to become a leader in water conservation methods and ingenuity. To achieve this they selected ECS to design and install an innovative rainwater reuse system in Darling Harbour.

Sydney Harbour Foreshore Authority is responsible for the management of some of the most valuable, prestigious and historically significant harbour foreshore land in Sydney, including the Rocks and Darling Harbour.

To reduce demand on potable water supply, Sydney Harbour Foreshore Authority selected ECS to design and install a commercial rainwater harvesting system at the Sydney Entertainment Centre carpark, located in the Darling Harbour precinct.

The scheme was designed so that the rainwater is supplied to a radio controlled irrigation system with an automatic switch to supply potable water from the mains network when there is insufficient rainwater. The harvested water is reused for irrigation of Tumbalong Park, on the foreshore of Darling Harbour.

KEY OUTCOMES

WATER SAVINGS
OVER 2000 KILOLITRES PER ANNUM YEAR

OLYMPIC SWIMMING POOLS EQUIVALENT
APPROXIMATELY 1

KEY SOLUTIONS

- LOW OVERFLOW VOLUME AT THE RAINWATER TANKS
- LOW ENERGY DEMAND DESPITE THE 22 STORAGE TANKS
- LOW MAINTENANCE REQUIREMENTS
- RADIO CONTROLLED BACKUP SUPPLY OF POTABLE WATER

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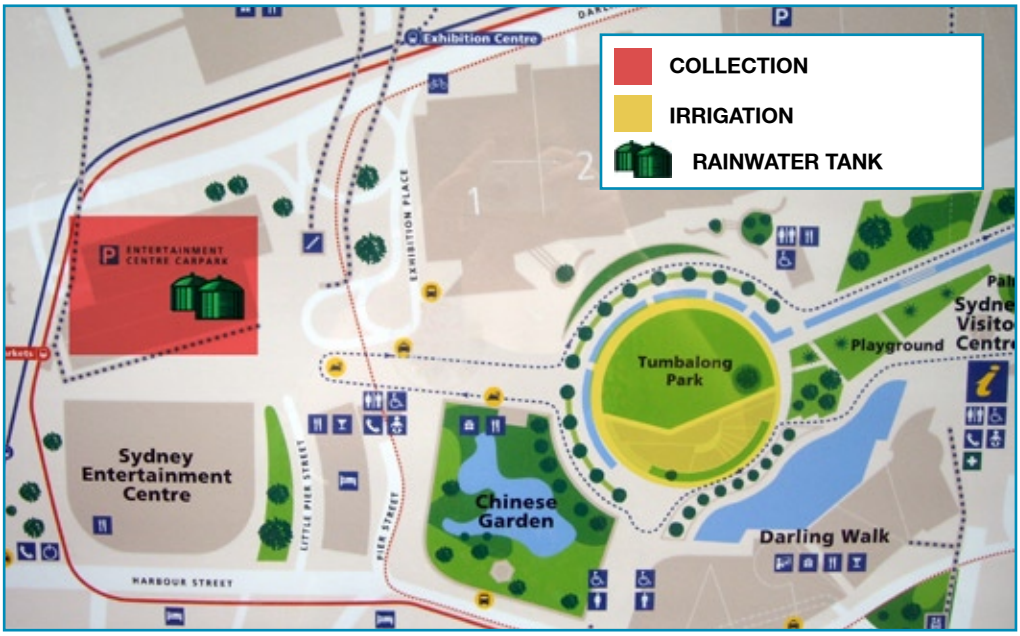
Lessons & Outcomes

"The rainwater scheme provides very significant potable water savings to this Sydney landmark – in an innovative way and with minimal maintenance requirements."

Front Image | Darling Harbour Foreshore
1 | Sydney Harbour Foreshore
2 | Water Tank, situated in the basement of the Sydney Entertainment Center Car Park
3 | Darling Harbour Cockle Bay



Rainwater Harvesting and Re-Use

ECS designed and installed a tailored rainwater harvesting scheme collecting rainwater from 10,000 m² of carpark decking.

Due to the space requirements water is stored in 22 storage tanks which are located in cavities beneath the carpark. The total storage volume is 660 kL.

The collection of rainwater is through a gravity fed system, which has been designed to allow for future carpark extension and if necessary, to increase the amount of water harvested to over 1 ML.

Since the installation of the water tanks, water consumption has been reduced by over 2,000 kilolitres per annum keeping the grass green for the national landmark.

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