Water Conservation
Tate Modern

With growing population rates and such a small percentage of all the water on Earth fit for consumption, it can make a huge difference to the environment if each of us preserve and conserve this precious resource. Water conservation means using the limited water supply wisely and not contributing to unnecessary wastage.

Rainwater collected from the roof of Tate Modern is stored in a below ground 33,000 litre rainwater harvesting tank. Recycled rainwater is then pumped back into the building via submersible pumps located in the storage tanks. If the external tank should run dry during a drought, the internal tank also has a boosted cold water supply to keep the system operational. Within the building the recycled rainwater is stored in a sectional tank and a variable multistage booster pump set then provides regulated recycled water to each floor for flushing the toilets.

Harvested rainwater and boosted cold water supplies are monitored and recorded on a monthly basis. An average of 226,000 litres of harvested rainwater is used annually to flush toilets at Tate Modern which equates to 37,666 flushes.

At Tate Modern they have installed an enhanced automatic control system for the south and west external landscape to manage the water for the irrigation system. Selected users have access to an App on any Wi-Fi connected portable or fixed device such as a cellular phone, tablet or PC/Laptop. This allows remote programming and detailed water flow monitoring to all parts of the landscape.

The data informs the user of how much water is used section by section. This allows programming to be tailored so that each area of landscape can receive the correct amount of water required. The system can be linked to local internet weather reports and parameters can then be set to automatically reduce or increase watering schedules depending on weather events which will reduce water consumption and improve the planting quality.

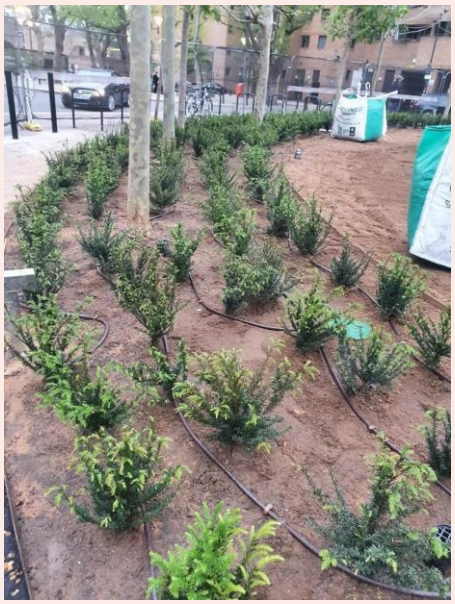

Image caption:
Water irrigation at Tate Modern

Faults can also be identified when excessive water use is detected or when no water at all is used as the water flow is monitored by each section of the landscape individually. The location of these potential problems can be precisely identified, and faults repaired in a timely manner to reduce water wastage.