

Rainwater collection and distribution systems can be installed in both new and existing buildings and the alternative water supply can be used for essentially all purposes except direct potable use. Buildings with large roof areas are ideal for rainwater collection, particularly where a constant use can be found for the recovered water, such as cleaning processes, to flush toilets or for irrigation.

Water is becoming more expensive and only a small proportion is used for direct potable use. Using rainwater appropriately can save up to 75% on potable water bills.

Enhanced Capital Allowances (ECAs)

The Government has recognised the importance of effective rainwater management by adding rainwater harvesting technology to the 'Water Technology List'. The ECA programme enables UK businesses to claim 100% first-year capital allowances on investments in environmental technologies, such as Waterscan's Aqua-Control rainwater management. Businesses are now able to write off the whole cost of their rainwater management system – and other sustainability projects – against their taxable profits.

Aqua-Control technology Waterscan provides a comprehensive water management service, including water auditing and leak detection. Part of that service is the provision of a free rainwater management suitability survey. This evaluates patterns of water usage on site and suggests water conservation measures that can be introduced along with a rainwater management system. Such a system would be provided as a complete package, including installation works.

Central to the process are a range of Waterscan Aqua-Control units. These are compact engineered packages with all the main components housed in a single enclosure cabinet, including integral break tank, pumps, filtration, instrumentation, ancillary equipment and control system.

Figure one shows a Waterscan rainwater management system recommended for new builds, incorporating an Aqua-Control 1000B controller with submersible pump, suitable for use where

tanks can be installed underground. The system delivers rainwater when available but reverts to mains potable water in drier weather when the rainwater tank is empty. The advantage of the system is that a water supply is guaranteed, while the use of rainwater is maximised without the need for header tanks and unnecessary paperwork.

With the Waterscan design, rainwater is collected from the roof of the building and filtered using a mechanical selfcleaning filter. The filter is installed directly into the rainwater tank to reduce the installation cost and further improve efficiency.

The rainwater flow and mains water back-up supplies are fed into the top of the integrated break tank such that at least an AAtype air gap is maintained above the water surface in the tank, in accordance with the BS EN 1717 standard.

When the level in the rainwater storage tanks is low, solenoid valves switch the supply over to mains water. Additionally, the mains water solenoid valve is opened periodically to allow flow through supply pipes to prevent stagnation.

Installing a Waterscan rainwater management system is the most effective way of reducing water consumption and cost while helping to manage rainwater resources. Using rainwater appropriately can save money on water bills and, while reducing pressure on our environment, help conserve our valuable drinking water resources.

- Neil Pendle is managing director of Waterscan Ltd.

To book a free rainwater management suitability survey, or for further information on Waterscan, visit www.waterscan.com; or call 01243 839880.