

## Water works

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Greater control of sprinklers is a simple way to save water.

**The need to reduce water consumption has never been greater. COD takes a look at how landscaping irrigation can become more efficient.**

Sustainable landscaping is the latest trend in the region right now and of the various ways that landscaping can be made more sustainable, nothing is more important than saving water.

There is a huge shortage of natural water in the region, creating an acute need to watch water consumption, and as one of the biggest users of water the landscaping industry is under particular pressure to increase water efficiency.

**Over-watering in the Middle East region is a common problem, more so than under-watering.**

According to Rehbein Environmental Solutions International, Dubai currently uses around 150 million gallons of water a day on irrigation - equivalent to 68% of the Emirate's total water usage.

New guidelines such as the Estidama introduced by Abu Dhabi's Urban Planning Council last month, underline the importance of water efficient landscaping in sustainable landscaping, but at the same time, vast stretches of greenery continue to top developers' wish-lists for new projects. How is the outdoor design professional meant to reconcile two such conflicting demands?

### **Concept control**

The first step is to minimise the water requirements at the design stage, says Rajan Dewan, director in charge of irrigation, horticulture and site supervision at regional landscape practice Cracknell.

"We need to start with the landscape design," he says. "We can play with the design and introduce some hard elements that are not visible, areas where you don't need irrigation.

It is all [about] your skill as to how you design your landscape because when you drive along the road, you will still see a green effect, but you will [also] see some of the areas have been hidden and covered with pebbles."

Spacing of trees on highways, for example, can be played with to give the effect of a tree-lined route without vast numbers of trees, he says.

Spatial planning is key to reducing water requirements, says Jim Haynes, general manager, irrigation division at Fitco, a supplier of a range of landscape irrigation products.

"Avoid large square or rectangular (football shape) turf areas in preference to small irregular (for example, kidney) shapes. This will reduce the surface area of grass used while at the same time giving the impression that there is a lot more grassed area than there actually is," he advises.

Landscape architects need to work with horticulturalists and irrigation designers to come up with the most water efficient designs, he adds. "Designs may look great on a computer screen but in practice may contain difficult areas to irrigate and maintain. This can often be easily avoided with the interface of practical irrigation knowledge and plant selection and layout at the design stage," he says.

### **Turn off the tap**

The second point is an obvious one: stop using potable water. Most of the public parks and large-scale green areas are now irrigated with treated sewage effluent (TSE), a combination of grey water (wastewater from basins and showers) and black water (water from toilets), but residential properties and some of the smaller hotels still mostly use potable water, the most precious form of water in a region where rainfall is a rarity.

While there are no regulations at present on water consumption, the government is pushing people towards using non-potable water for irrigation by initiatives such as raising the price of water.