Number/code: OM/SM11

Title: Water Management System

Guidelines section:

[ ]	Governance	[X]	Operational management

[ ]	*Context of the event*	[ ]	*Procurement*
[ ]	*Event*	[ ]	*Mobility and logistics*
[X]	*Stadium management*	[ ]	

Description

The Mercedes-Benz Stadium, is the home of Atlanta Falcons and Atlanta United, respectively American teams of NFL and MLS. It is the first sport facility in the world to achieve the LEED Platinum certification thanks, among others, to its sustainability solutions in terms of water management.
In fact, the stadium can take advantage of an advanced storm water management system.

Environmental benefits

The Mercedes-Benz Stadium uses 47% less water than the standard (EPAct 1992) due to water-efficient fixtures and conservation infrastructure that allows also to use rainwater for irrigation.

Examples:

1) GREEN POINT STADIUM: Green Point Stadium, Cape Town achieved the Green Goal 2010 target of reducing potable water use by 10% through water saving technologies in the stadium design, the roof was designed to collect rainwater, and the landscaping around the stadium included water-wise plants and water-efficient irrigation systems (drip irrigation). In addition, low-flow showerheads and aerated taps were also used.

2) MOSES MABHIDA STADIUM: In Moses Mabhida Stadium, water metering was conducted for the stadium, in addition to the water wise fittings and rainwater harvesting into a 700 cubic meters underground storage, and intelligent irrigation, resulting in 74% reduction of potable water.

3) MARACANÃ STADIUM: Similarly, the Maracanã Stadium in Rio has an array of 18 massive rainwater harvesting tanks. Each tank can store as much as 6000 liters of water and can be interconnected with other tanks to fulfilll the water volume requirements for any domestic, commercial or industrial application. The rainwater tanks are fed from the roof (an area of 32,000 m^2), which have been engineered to collect large amounts of rainwater for use in the stadium's water

systems, reducing its reliance on externally supplied water by 40%. The modular rainwater tanks supply water to irrigate the pitch, as well as for use in the 292 toilets and restrooms. The restroom facilities are also equipped with ecological flushing systems and intelligent faucets.[1]
Rainwater is soft and therefore it does not produce any limescale deposits. To harvest rainwater, the drainage pipes from the existing roof surfaces are connected to the rainwater storage tank via the low-maintenance rainwater filter. Filtering the rainwater ensures that the water quality can be preserved for long periods of time so that high-quality water is immediately available on demand.

Economic benefits

The practice allows the clubs to reduce the costs related to the consumption and management of water.

Applicability and replicability potential

The practice is not easy to be applied, as it is an ultimate system in terms of sustainability efforts. The replicability is difficult but it can represent a benchmark for improvements.

Source

Mercedes-Benz Stadium

Mercedes-Benz Stadium

Green Point Stadium, Moses Mabida Stadium, Maracanã Stadium