



Vel Tech
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(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

SUSTAINABLE WATER EXTRACTION ON CAMPUS

Drivers

Promoting sustainable water management within schools is important because of the forecast increase in the expansion of school construction and the opportunity to educate students about water conservation at a formative stage of their development.

There are a number of key drivers for sustainable water management, as follows:

- Climate change;
- Demographic changes;
- Reduction of surface runoff and diffuse pollution;
- The environmental impact of increased water abstraction
- Potential to save costs and
- Planning requirements and potential future changes in legislation.

The business case for sustainable water management

Sustainable water management can contribute to schools by providing educational, financial and environmental benefits. The small financial savings that integrated water management can obtain from lower sewerage charges and water bills can, when considered in aggregate, make further water management measures viable. The economic case for water management measures will be largely governed by the payback period, the period it takes for the capital outlay on sustainable water management measures to be paid back by savings in operating costs. The operational savings should consider potential cost reductions in both sewerage and water charges – for example, in assessing the viability of a rainwater harvesting system. Considering sustainable water management measures at the design phase will generally be easier and more cost-effective. However, this does not mean that

implementing measures as part of a refurbishment should be dismissed as uneconomic. Different aspects of sustainable water management are considered below:

Education

- Water conservation is a crucial part of the increasingly important topic of sustainability and will help students to focus on social responsibility – a key component of sustainable development.
- Water management can promote a deeper understanding of the hydrological cycle.

Financial / cost savings

- Water conservation and water efficient technology can reduce water bills through lower water use
- Monitoring and management of water use facilitates the management of resources and monitoring of expenditure
- Sub-metering certain components of water use, such as garden watering, can provide evidence to gain reductions in sewerage charges
- Excellent and efficient plumbing design can reduce heating costs.

Environment

- Water conservation helps lower the demand for new water resources and reduce the need for potentially damaging increases in abstractions.
- Students' education helps bring awareness of critical concerns, such as environmental issues and sustainable development.
- Vel Tech helps in the management of flood risk, improves water quality in the environment, and can contribute to increased biological and ecological diversity.
- Good plumbing design minimizes energy use.
- Within the school, there are increased amenity and wildlife creation benefits.