WWT Wetlands for life

Catchment Based Approach
Partnerships for Action

The Susi Earnshaw Theatre School

SuDS for Schools

Susi Earnshaw Theatre School is of the ten schools in the successful "SuDS for Schools" project which focuses on the Pymmes Brook catchment in North London.

Aim of the Scheme

Alleviate localised flooding and create green space to be used as an educational and recreational resource within a heavily developed and constrained environment where such opportunities would not otherwise exist. Alongside this primary aim, the scheme was required to cause as little disruption to the function of the surrounding car parking and deliveries access area.

System Description

The Susi Earnshaw Theatre School is a secondary school in Barnet, London which specialises in the performing arts. Water carrying pollutants and sediments previously ran off the school's roof and car park, flooding the doorways of properties on the site before flowing straight into the street drain and into a tributary of the Pymmes Brook. The water is now directed into the SuDS features via a new 'tarmac river' designed to maximise car-parking capacity and site access.

The system comprises two sub-catchments. In the first, a grass filter strip is located at the end of the newly-created "tarmac river" which conveys surface water away from the car park. This filter strip removes sediments and hydro-carbons before water travels into the Mediterranean gravel garden which forms the major

Photo: Sue Pritchard/WWT.

Schoolchildren planting their SuDS.

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Schoolchildren planting their SuDS.

storage element of the SuDS. In the second sub-catchment, rainfall from a classroom roof is discharged into another filter strip removing sediment and then passes into a lined bog garden and pond feature. Overflow from the pond travels to an unlined damp wetland habitat (planted with native species) and is stored in the soil and plants and/or goes to groundwater. Any excess water then flows into the Mediterranean gravel garden as above. Exceedance flows from this return to the main drain.

System Performance

The new SuDS have been welcomed by the school community, especially by teachers who did not have access to a natural environment where students could study science and nature. Pupils, staff and parents participated in a planting day which helped to increase the biodiversity value of the SuDS. Habitats have established well and frogs are breeding in the pond feature. The system has helped resolve the localised flooding issues and coped well with all rainfall events it has had to deal with to date. It is designed to be able to cope with all but the most exceptional rainfall events (the SuDS will manage 100% of a 1:10 year hour long event) and in the event that capacity is reached, excess flows would return to the main drain.

Team and details

The scheme was delivered by WWT in partnership with the Environment Agency and Thames Water. The system was designed by WWT and WWT Consulting and was constructed by Warwick Landscaping Ltd.

Thames Water

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in partnership with Environment Agency