



Designing SuDS to manage water quality

Theo Thomas

We have a right to healthy rivers and clean water



98% of London's rivers fail the Water Framework Directive, almost 75% across England. They should be rated as Good, too many are Poor

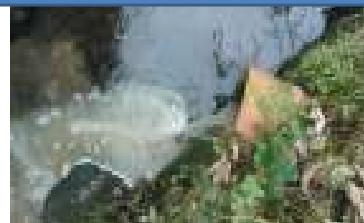


We pollute our rivers every day – perfect design

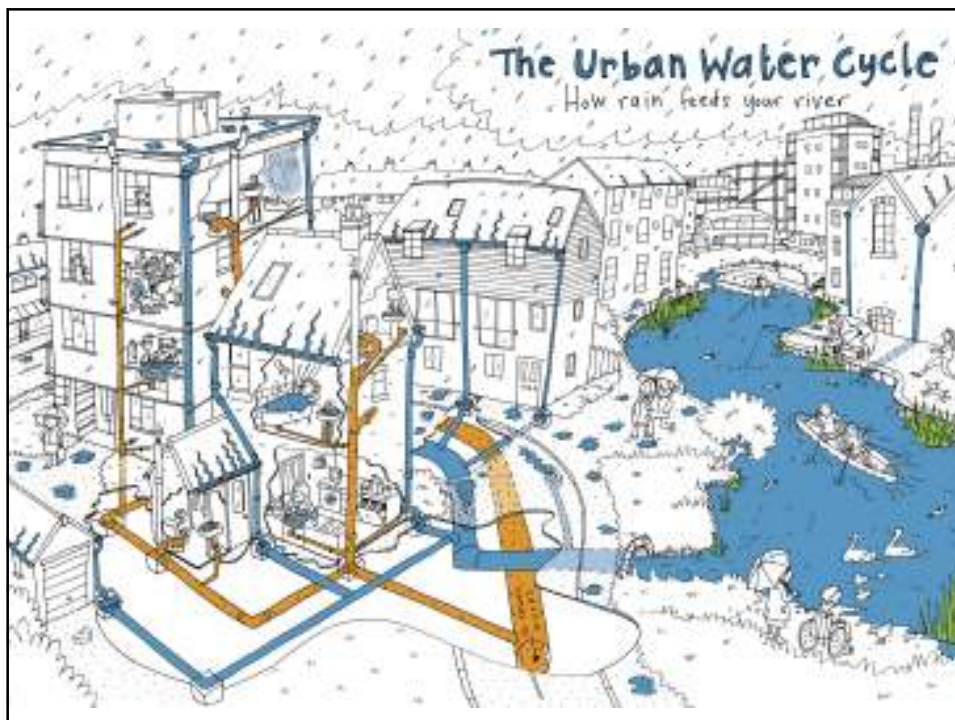


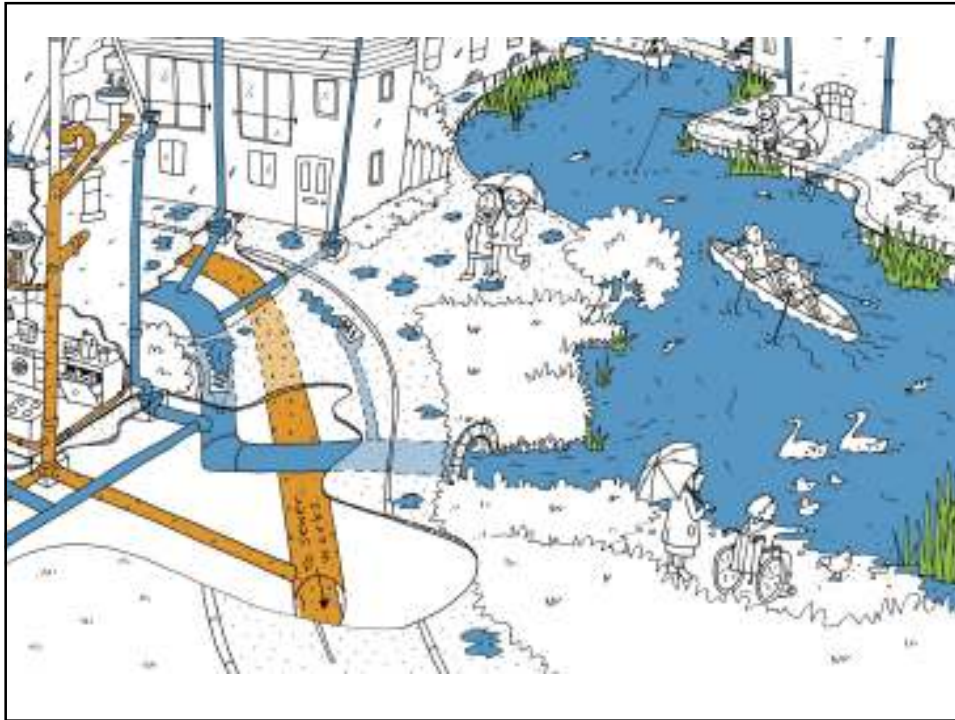
Misconnections

In places where there are separate pipes for sewage and rainwater, an average of 8-10% homes are polluting rivers



SuDS improve water quality but they also expose water pollution. By putting the water from our roofs and roads on the surface instead of pipes its condition is easily monitored



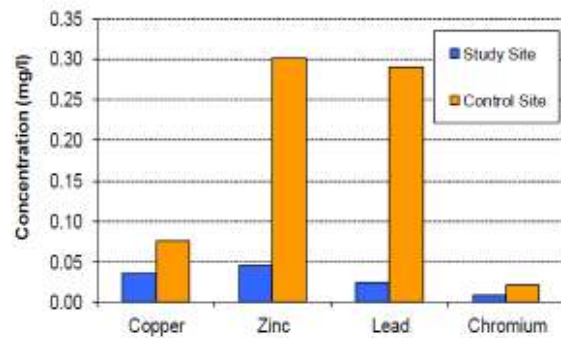


People care about rivers and see water pollution as unacceptable



Lamb Drove housing estate, Cambourne, Cambridgeshire

Heavy Metals

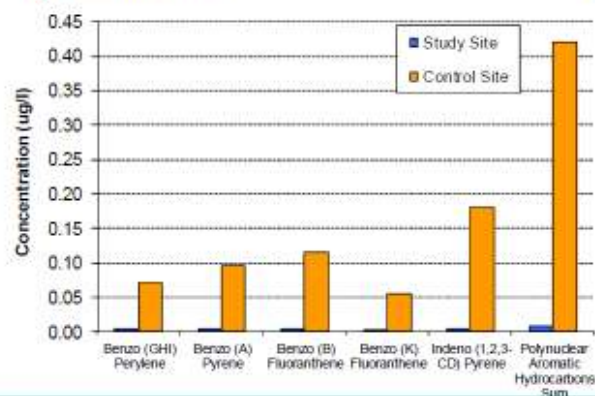


2 October 2013

Royal HaskoningDHV

Comparison of vehicle pollution between the site at Cambourne with SuDS and without

Hydrocarbons



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Salmons Brook Healthy River Challenge



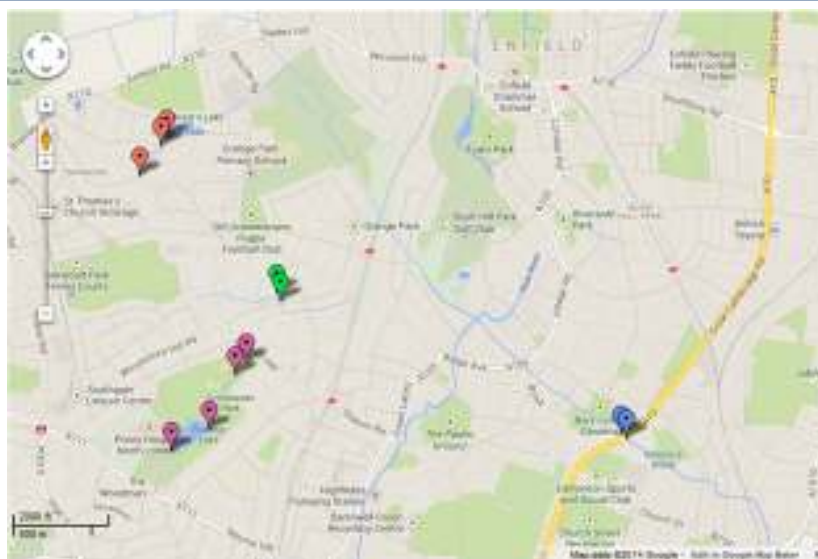
London Borough of Enfield has many rivers, most of which run in daylight, not in pipes. They are plagued by pollution.

£361,000 from Defra's Catchment Restoration Fund is being used to create 6 river-protecting SuDS.

Once LB Enfield knew the scale of the pollution problem they became willing and creative partners. The Environment Agency has been a key collaborator too.

An additional £400,000 SuDS creation and river restoration is underway.

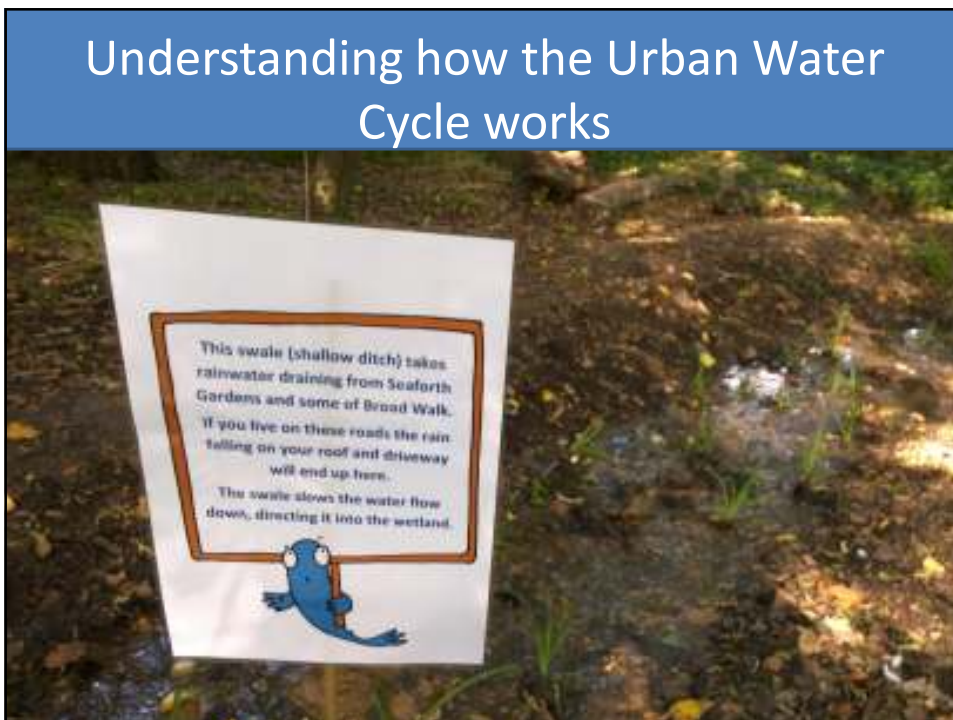
Locations



SuDS with a message



Understanding how the Urban Water Cycle works



Making connections between our actions, our rivers and our health



The final basin at the end of the Grovelands Park SuDS train



Making connections between our actions, our rivers and our health



We've just secured another £238,000 from Thames Water to create permanent ways to help people understand what the SuDS do, why they are needed and how they can care for them.

They will be designed in concert with the people that use Grovelands Park and Glenbrook.

The Glenbrook



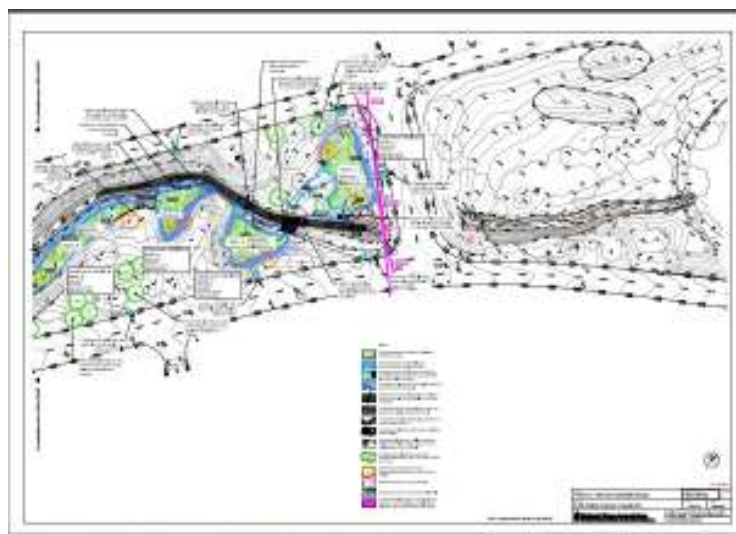
Glenbrook SuDS designs



Catchment size: 42 hectares

Cost: £41,000

Glenbrook SuDS designs



Basin filled to test for leaks



SuDS Creation



Volunteers planted the aquatic vegetation



Reed Sweet Grass



Challenges



Reinforcements



Diverter weir and stepping stones



Good weather helps



A more natural river



Pollution still occurs





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