

## **Water for Schools programme summary**

November 2014

### **Background and context**

The “Water for Schools” programme (WfS) was a partnership established in 2011 to make schools in London more water sustainable. It was initially a three-year programme to improve the water efficiency of up to 400 London secondary schools supplied by Thames Water. It evolved from the Rainwater Harvesting (RWH) for Schools pilot project which ended in April 2012. The programme ran for four years (2011 – 2014), which included a final legacy phase (a period of evaluation, ensuring availability of materials developed, and embedding of learning).

The WfS partnership was made up of four core board members, Environment Agency (EA), London Sustainable Schools Forum (LSSF), Greater London Authority (GLA), and Thames Water Utilities Limited (TWUL). The programme was funded through financial contributions from the EA, GLA and TW, with substantial contributions in kind from LSSF and the three financing partners. In kind contributions included project management and secretariat roles, communication and publicity work). The programme was also supported with in kind contributions for two years by an independent water expert.

The programme worked with a number of delivery partners, commissioned for their specialist skills. Groundwork London, Mission:Explore, Ech20, Aqualogic and Kingspan Group were contracted to deliver on different phases of the programme.

### **Key programme objectives**

The objective of the programme was to explore and deliver exemplar sustainable water management schemes across London schools. This would be delivered through whole school engagement and educational awareness raising and also through physical interventions such as improved metering, repairs and water efficiency installations. The in-school education and awareness activities worked across the range of school community members (teachers, students, support staff) and involved the production of freely available innovative engagement support material. Engagement activities raised the idea of exploring environmental and water sectors for career opportunities, and linking all parts of the water environment.

Supporting objectives included establishing a behavioural change programme, mobilising schools as water efficiency advocates, establishing a legacy programme for London’s schools, saving money for schools through water efficiency measures, and delivering a widely available learning programme.

### **School selection criteria**

Primary selection criteria were based on enthusiasm and willingness to participate in the first instance, with secondary criteria based on socio-economic and environmental indicators. These are further described in the project documentation.

### **Cost of the programme**

Breakdown of programme funding (£k) (without in-kind contributions)

	Thames Water	Environment Agency	Greater London Authority	Total
Phase 1:	5.5	4.5	10	20
Phase 2:	80	16	40	136
Phase 3:	25	18		43

## **The phases and what they delivered**

**Phase 1 (2011-12)** engaged four schools (two primary, two secondary), delivering:

- Rainwater harvesting equipment (Kingspan Group Plc)
- Engagement and awareness programme (ECH20), including assemblies, workshops and teaching aids
- The project saw 669 m3 of rainwater collected in first year which will save the schools £1,183 (at 2011-2012 prices) from their water bills.
- Four rainwater harvesting systems (storage capacity ranged from 3,600 to 10,000 litres)
- A total of 288 pupils from Year 2 to Year 11 received in-depth workshops, with assemblies delivered to 670 Year 1 to Year 11 pupils and 60 teachers.

**Phase II (2012-13)** engaged 39 schools (a mix of primary, secondary and Academies), delivering a programme of:

- Replacement of old style water meters , with more advanced meters (Automated Meter Reader), installed by Thames Water at 39 schools ( predominantly secondary schools) . In total, 86 meters were fitted, as many schools have multiple meters. Through the monitoring of these meters, leaks were detected in 13 schools. Some of these leaks proved to be large, and were having a noticeable impact on water bills.
- Water Audits and delivery of water efficiency measures by Thames Water.
- Whole school engagement approaches/materials by Groundwork London:
  - 20 education days / visits
  - 26 Green Doctor visits work with site premises staff
  - 2 employment/career fairs
  - 3 inspirational visits
- Electronic educational materials/approaches by the Geography Collective.

**Phase III (2013-14)** engaged with 25 schools, delivering a programme of:

- Water leak reduction interventions (assessment and repair) at 13 schools identified in Phase II as having excess leakage (Thames Water)
- Publication of the Mission:Explore water materials
- Engagement/educational programme at 18 schools, working with 111 staff and 1632 pupils (Groundwork London)
- Mobilising schools as water efficiency advocates and establishing best practice (Groundwork London)
- Careers fairs to promote pathways into pre-apprenticeships and apprenticeships (Groundwork London)
- 16 Green Doctor Water and Energy Audits with pupil participation (Groundwork London)
- Reduction of leakage by 744 litres per hour or 6.5 million litres per year and financial saving equivalent to £13,491.10 per year.

**Phase IV (2014)** included a final evaluation of the programme, provision of all materials online for widespread use, transition to an embedded process of engagement with Thames Water. Legacy elements of this programme include:

- Mission Explore resources
- Leakage and wastage programme developed with methodology; evidence from report
- Costs associated with leakage and wastage (water, damage repair)
- Use of Thames Water Automatic Meter Reader (AMR), use of engagement materials within the progressive metering programme.
- Groundwork's knowledge on engaging with schools

### **Key programme conclusions**

- Working with schools presents a challenge to achieving consistency across the programme phases. Each school may have different levels of engagement and goals.
- There are genuine savings in water and cost to be found, mostly from wastage rather than leakage. (See report by Thames Water-11 below.)
- A true calculation of savings through behavioural change both at school and through extension to the home has not been possible. Impacts of behavioural change are difficult to quantify.
- A dedicated project manager is recommended for a project of this scope. This was a recurring theme through all phases.
- All board members had experienced difficulty in either obtaining an appropriate contact at a given school, or finding that the contact details at a school had changed, leading to a loss of project continuity. An updated contacts list and communication log is essential.
- Clarify expectations for all parties.
- Programmes can and should, change as understanding is improved
- Institute a governance structure and maintain a risk register

### **Programme changes**

- Due to the 2012 drought, Thames Water had to reallocate funding to other priority areas, and budget was significantly reduced. This resulted in a smaller number of schools included in the Phase 1 delivery.
- From secondary to primary - Establishing the programme in secondary schools proved very difficult, largely due to a lack of dedicated staff resource. This meant that the board agreed to offer the programme to primary schools.
- Increased focus on leakage and wastage- The results of the findings of phase II of the programme resulted in the board increasing the emphasis on water leakage and wastage.

### **Next Steps**

- Thames Water is continuing work with schools in London. They have recently contracted three providers to deliver a range of student engagement and education packages, to a total of 50 schools. This phase of the Water Efficiency Schools Programme (WESP) will include both primary and secondary schools, and will also include intensive water audits and retrofitting of the schools recruited.

### **Project Document list:**

1. WfS\_ Phase I RWH final report
2. WfS Phase II III IV Business Plan
3. WfS\_Groundwork's Phase II Final Report
4. WfS\_MissionExplore's Phase II report
5. WfS\_TW's Phase II AMR and engagement evaluation
6. WfS\_Phase III review session July 2014
7. WfS\_GLA's Phase III evaluation summary
8. WfS\_Groundwork's Phase III final report
9. WfS\_Groundwork's Phase III final report Appendix A
10. WfS\_Groundwork's Phase III final report Appendix B
11. WfS\_TW's Phase III AMR and leakage evaluation
12. WfS\_TW Water for Schools case study

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