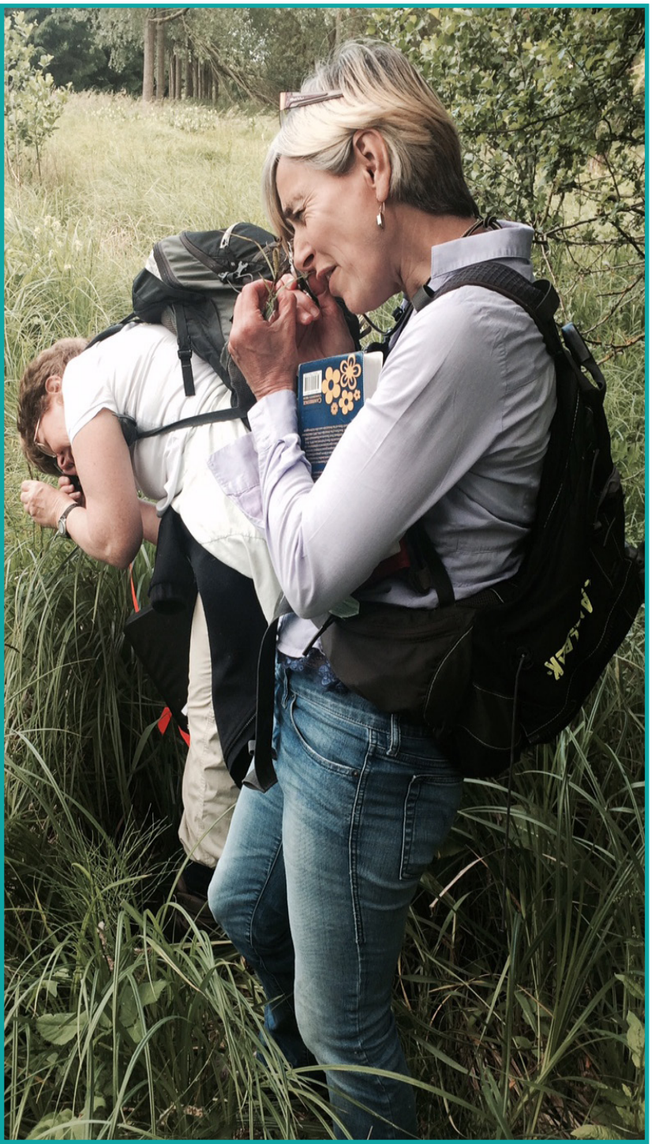
Case Study: Down by the riverside

The last few years have seen a significant shift in the way in which rivers in England are managed. In 2013 the Department for Farming and the Rural Environment (Defra) launched its Catchment Based Approach (CaBA). As part of this initiative, Defra encouraged collaborative working by funding the creation of local catchment groups that could support the management of rivers and their catchments. Only two years on, you would be hard-pressed to find a catchment in England that doesn't have some form of 'grass roots' representation.



Van Walt has been an active partner of one of the groups, the Evenlode Catchment Partnership (ECP) since its inception in 2014. The catchment of the River Evenlode is in the headwaters of the River Thames and demonstrates many of the typical water management issues of England's lowland rivers. There are concerns regarding water quality, land use, natural habitats and low flows. It is also one of the tributaries of the River Thames upstream of Oxford where the feasibility of a large flood alleviation scheme is being considered.

Van Walt has helped the roll out of the ECPs 'Know Your Catchment' campaign, an ongoing programme of activities to engage schools, local landowners and communities in discussions of water issues in the Upper Thames. The collection of environmental data to understand how catchments work and to identify issues as they occur is key to raising awareness. Identifying the sources of observed environmental issues such as flooding and poor water quality is also a key ingredient for the design of solutions to these problems. An important philosophy of the work of the ECP is to collect environmental data that may help understand what is happening in the landscape and using new technologies to help inspire the next generation of water and environmental scientists.

On a sunny day in July 2015, and soon after an enthusiastic discussion with Vincent, Dirk and Lewis arrived in deepest Oxfordshire to install one of their new automatic water level logging stations, *vanwalt*CONNECT on the River Evenlode. The *vanwalt*CONNECT system has been installed at the downstream end of the Evenlode catchment at beautiful Combe Mill, a location that itself was completely inundated during the 2007 floods and that now acts as a focal point for the monitoring activities of the ECP. Combe Mill is itself a visitor attraction that receives over 2,500 people per year, attracted by wonderful old steam engines, a working forge and a wonderful riverside café. The ECP is actively working to further develop this location as an environmental education centre and it recently hosted a large group of trainee geography teachers. The Van Walt telemetry device was a star of the day really showing how technology can capture imaginations to support discussions about catchment management and real world environmental problems.

In the meantime, the system has now been up and running for 6 months and has been collecting the data we need to understand what is happening in the catchment during periods of low flows and flood. Our ultimate intention is to have a 'live' feed from this location that enables schools and the local community to access information on their local water environment on a daily basis.

Here at the partnership we are hugely grateful to the Van Walt team for their continued support for what we are trying to do. There is a natural synergy on working in this way. The collaboration between Van Walt and the ECP is a great example of how businesses, scientists, community groups and the charity sector can work together, just as Defra intended. The information that high technological solutions like *vanwalt*CONNECT provides has a critical role to play in helping people understand the nature of observed problems and, most importantly, helps to design solutions to them. Regardless of whether they occur at the local or the global scales, data collection to understand the nature of environmental problems will be key to designing sustainable and cost-effective solutions.