



**Wessex**  
Chalk Stream  
& Rivers Trust

SPRING 2017

# NEWSLETTER



Science & Research

Catchment Management

Habitat Improvement & Restoration

Education



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## CHAIRMAN'S INTRODUCTION

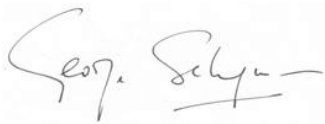
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Dear Supporters

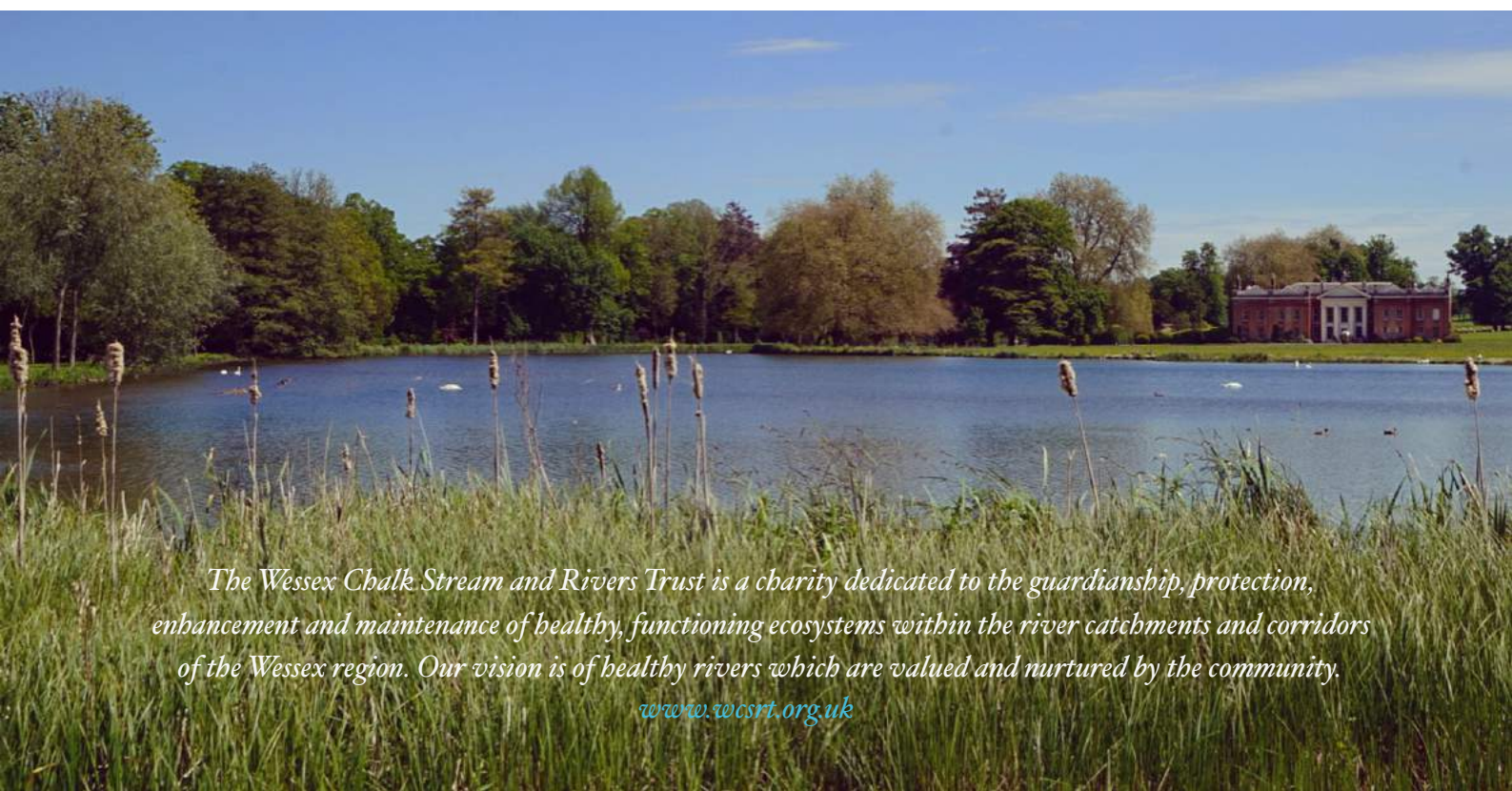
I write this introduction sitting in brilliant sun in early May after two days of weather forecasts predicting heavy rain – which almost entirely failed to appear in the Test Valley. Levels in our chalk streams are very low for the time of year following a dry winter and a still drier April. The soil of the water meadows is already cracked and drying fast. From a distance it all looks beautiful in the spring sunshine, but less good close up. Perhaps we should see that as a metaphor for the wider chalk stream environment.

The catchment invertebrate fingerprinting studies carried out in the last two years by Wessex Chalk Stream and Rivers Trust in the Test, Itchen and Avon catchments have confirmed what we all feared, namely that sedimentation and other pollutants are causing insidious long-term damage to the quality of our water and the quantity of the aquatic species living in it. There are some bright spots, including the restoration awards won on the River Avon, as described in this newsletter by Paul Jose. But ironically, just as past restoration work is being applauded, the Environment Agency is suffering severe funding cuts nationally which are now leading to major cut backs at local level. Funding restoration projects promises to get still more difficult over the next few years. Still, we relish the challenge!

Last time we had such a dry winter I remember agonising with the then director of WCSRT about what the summer would bring for our rivers and whether we should expect a crisis in water temperatures caused by drought. A week or so later it started to rain and forgot to stop. That was the year when the theory that the aquifers could only recharge in the winter was proved wrong. While not wishing to spoil all your summers, a part of me hopes we may get lucky that way again in 2017.



George Seligman, Chair of Trustees



*The Wessex Chalk Stream and Rivers Trust is a charity dedicated to the guardianship, protection, enhancement and maintenance of healthy, functioning ecosystems within the river catchments and corridors of the Wessex region. Our vision is of healthy rivers which are valued and nurtured by the community.*

[www.wcsrt.org.uk](http://www.wcsrt.org.uk)



**SCIENCE &  
RESEARCH**



**HABITAT & FISHERIES  
MANAGEMENT**



**CATCHMENT  
MANAGEMENT**



**EDUCATION**

WCSRT Director, Paul Jose, shares his thoughts on:

# Managing Uncertainty

The last year has seen the largest political shift in recent memory, resulting in uncertainty across the environmental sector. This means it is even more important than ever for WCSRT to demonstrate benefits, learn from our experience and promote the work we do both as an individual organisation and through the Catchment Partnerships.

I am proud to report that the River Avon has just won both the Catchment Restoration Award and National River Restoration Centre Prize. These awards are in recognition of a long journey from when river restoration was not considered part of mainstream thinking. Today river restoration and the catchment based approach are becoming increasingly accepted and are helping deliver benefits for the water environment and all those who utilise and enjoy our rivers and streams. However, we are at a cross roads and it is concerning to see government currently reducing capacity and funding to deliver future projects in the Avon and other catchments. We are approaching partners to determine and shape new ways to deliver this valuable work on the back of this recent success.

Our recently produced booklet of maps of the Avon and its tributaries for the Catchment Invertebrate Fingerprinting Study, which follows the last year's one for the Test & Itchen, highlights the insidious sediment and nutrient issues that are damaging the species richness and abundance of river flies and the wider ecological health of our chalk streams.

The spring of 2017 sees two new appointments to WCSRT. Liam Reynolds joins us as Avon Catchment Officer after working for Norfolk Rivers Trust and recently undertaking a masters degree; and Veronica (Vee) Moore joins us as Education Officer. Vee has a real passion for school and community education and will be seeking to build on the success of our outreach programme with Winchester College.

WCSRT's approach to addressing uncertainty is to build on success, plan and invest for the future. Rupert Kelton (Test & Itchen Catchment Officer) and Ses Wright (Projects Manager) have both been actively developing new projects as well as delivering on the ground improvements for our rivers and catchments. In uncertain times it is more important than ever to engage, promote and support the Trust and its partners.

Please read, enjoy and share the Spring 2017 newsletter which gives a flavour of our ongoing and future activity and illustrates how the Trust can make a real difference to our local rivers.



# HAMPSHIRE AVON FISH HABITAT PROJECTS

The Barbel Society (BS), Environment Agency (EA) and Wessex Chalk Stream and Rivers Trust (WCSRT) are pleased to announce details of the latest habitat improvement projects completed as part of a continuing partnership which plans to improve habitat for fish fry and other wildlife on the Hampshire Avon.

Using funding provided by the EA and BS, and technical and logistical support from WCSRT, ten log deflectors and five fry bays were constructed at a site near Fordingbridge. These will improve diversity of flow and create refuges for fish fry of all species, as well as connecting hundreds of metres of water meadow ditches to the main river. Live willow was also planted to create overhead and instream cover.

An old silted flight pond within a historic oxbow area, upstream of Ringwood, has also been enlarged and connected to the river via a ditch, creating a large backwater which will again be an important refuge for fish fry, as well as important plants, invertebrates and other wildlife.

Pete Reading, Conservation Officer for the Barbel Society said; "We are delighted with the positive results of our continuing partnership with the EA and WCSRT, and also with local landowners, and can see huge benefits for fish and other wildlife from these restoration measures".

The fish surveys, carried out last summer by WCSRT, the Barbel Society and Bournemouth University of similar projects undertaken the previous year showed excellent results. There were good numbers, of a range of species, of fish fry using the bays, to take advantage of the shallower, warmer water to develop. The results demonstrate that these projects are delivering genuine improvements for fisheries and wildlife along the Avon valley.



In November 2016, WCSRT also completed a second phase of habitat improvement on the River Nadder. This was a continuation of work done in 2015 by WCSRT, Wild Trout Trust, Barford and Burcombe Angling Club and the landowner. We continued to install more woody material and hinge trees, where possible, upstream from the earlier works. The works will create more in-channel habitat for fish and invertebrates, as well as narrowing the channel and pushing the flow across the channel to recreate natural processes that have been lost in a dredged channel. The work was done in partnership with the Wild Trout Trust and the Wessex Chalk Streams Project, part of Wiltshire Wildlife Trust. Volunteers helped build the structures in the channel, whilst contractors felled the trees and supervised the volunteers. There are further works planned upstream to continue the improvements this year.

Funding for these works has been and is available from the Environment Agency's 'Fisheries Improvement Programme' which is directly funded by rod licence holders through the purchase of their EA rod licence. We would urge clubs or groups with any similar projects in mind to get in touch with Liam Reynolds, WCSRT's new Avon Catchment Officer: [avon@wcsrt.org.uk](mailto:avon@wcsrt.org.uk)



Bankside Alders helping to create a brushwood mattress on the River Nadder at Burcombe.

## WCSRT People - New Avon Catchment Officer

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### **Liam Reynolds (Avon Catchment Officer):**

Liam has a BSc in Environmental and Countryside Management and just finished a masters degree in Aquatic Sciences. Liam was Catchment Officer for the Norfolk Rivers Trust and has experience in stakeholder engagement, project management and delivery. He has particular interests in salmonids, coarse fish and eels as well as water quality and soils. He has a range of habitat management experience and is a keen angler.



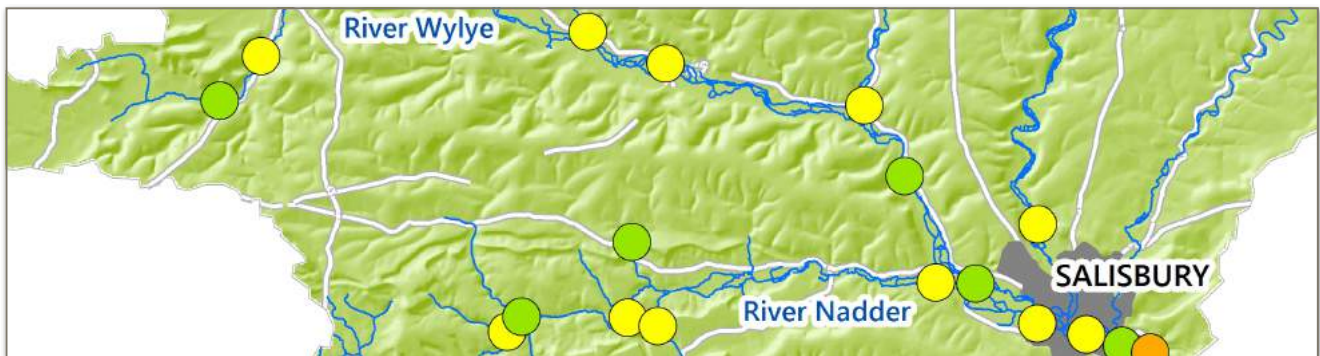


# CATCHMENT

## INVERTEBRATE

## FINGERPRINTING

### WHAT ARE RIVERFLIES TELLING US ABOUT THE HEALTH OF OUR RIVERS ?



The analysis and recording of invertebrate communities living in our rivers and streams can provide a unique perspective on how particular environmental stressors are impacting our local water environment, whilst also helping add to the weight of evidence in support of addressing these impacts.

WCSRT has been continuing its work utilising river flies as 'biological indicators' with the goal of providing a catchment scale picture for each of the region's river catchments.

The studies also provide us with an excellent opportunity to engage and help inform people about the findings and to stimulate action in tackling the issues.

With support from Wiltshire Fisheries Association and the Avon & Stour Riparian Owners Association, WCSRT has recently compiled a map booklet, similar to that produced for the Test & Itchen last year, with the results of the Hampshire Avon study. The booklet is available to view online at the [link overleaf](#).

The results from the study's biological signatures, which are associated with reduced riverfly species richness and abundance, indicate that sediment and phosphate, in particular, were impinging upon the ecological condition of some reaches of the River Avon and associated feeder rivers.

However, with the exception of eutrophication in the lower reaches of the River Avon up to 2014, the main river exhibited fewer and less marked biological signatures of low flow, organic, phosphate and sediment stress than the nearby Rivers Test and Itchen.

The results of the study have helped contribute towards action now being taken by the Catchment Partnership to help address sediment and associated phosphate issues, through their Sediment Pathways project.

The Avon map booklet is also being utilised as part of the project, helping visualise how localised diffuse pollution is impacting the wider catchment.

# Map Booklet: Hampshire Avon



## VIEW ONLINE

[www.https://issuu.com/ticp/docs/avon\\_cif\\_low\\_resolution](https://issuu.com/ticp/docs/avon_cif_low_resolution)

or request a copy from:

[admin@wcsrt.org.uk](mailto:admin@wcsrt.org.uk)

## Spring Sampling: River Meon

With help and support from partner organisations, WCSRT is now embarking on a Catchment Invertebrate Fingerprinting (CIF) Study for the Meon catchment.

As with the previous two studies, the Environment Agency have helped supply historic data from their monitoring sites on the Meon. This long term data set will be analysed to provide a picture of temporal trends.

In addition to the Environment Agency data, independent invertebrate samples are also being collected for analysis. Some of the sampling will also be used as part of Salmon & Trout Conservation UK's Riverfly Census.

To aid the collection of samples WCSRT has been fortunate to work with the South Downs National Park and their excellent group of Anglers Riverfly Monitoring Initiative (ARMI) volunteers.

WCSRT's Scientific Officer, Jon Bass, held a sampling session in Warnford, after which volunteers carried out their usual ARMI counts before returning later that afternoon with their invertebrate samples which have been preserved and sent to the lab for analysis.

We are looking forward to seeing all the volunteers again for autumn sampling this October and comparing how their spring counts match up with the lab results!



## Dun Sub-Catchment Project

The proposed fish passage improvements being planned in collaboration with the Environment Agency and landowners on the River Dun are continuing to take shape.

Ses Wright, WCSRT's new Projects Manager, is currently working with the statutory agencies, to secure relevant consents and with river contracting companies preparing quotations to bid for the works.

All being well, we are expecting works to begin early this Autumn and we look forward to reporting back on progress with a full article in the next newsletter.

## Gravel Cleaning

WCSRT were able to help riparian owners and fisheries again last autumn with gravel cleaning and were pleased to hear reports of healthy numbers of redds later in the year.

The Environment Agency's Hampshire gravel cleaning programme, carried out between 1996 and 2013 was based on research by CFAS which showed significantly increased survival rates of salmon eggs at cleaned sites. Whilst this remains, we were intrigued to hear Dr Cyril Bennett talking at the Test & Itchen Association's members day last November about his research showing the recovery of invertebrate populations, to elevated levels, on recently cleaned gravels. Clearly, both of these examples emphasise the need to tackle sediment pollution at source but also indicate that appropriately targeted cleaning of gravels can improve egg survival and enhance invertebrate populations.

Any owners interested in undertaking gravel cleaning this autumn are welcome to contact us for help or to borrow kits.



Autumn cleaning below cattle crossing, on the Cheriton Stream

## WCSRT People - New Projects Manager



### Ses Wright (Projects Manager):

Ses was a senior researcher at the University of East Anglia and former deputy director of MSc courses in Environmental Impact Assessment and Environment Management/ Auditing. She works on a part-time basis for both the Arun and Rother Rivers Trust and Wessex Chalk Stream and Rivers Trust. An experienced project manager, she leads delivery of river habitat, fish passage and a range of river enhancement projects.



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# Watercress & Winterbournes

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## Landscape Partnership Scheme - Heritage Lottery Fund Bid

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Over the winter the Test & Itchen Catchment Partnership (TICP) have been continuing the development of the 'Watercress & Winterbournes' bid, which is being led by the Hampshire & Isle of Wight Wildlife Trust and supported by WCSRT as joint hosts of the Catchment Partnership.

The proposed Landscape Partnership Scheme will be focused on the headwaters of the Test & Itchen catchment. The iconic chalk rivers of the Test & Itchen and all their associated natural and historical features are central to what makes this area of the Hampshire Downs unique. However, as supporters of WCSRT will be well aware, the pressures threatening these rare chalk stream environments are both numerous and complex.

The TICP held a series of community workshops at the start of the year to inform local people about the proposals and to seek the communities' views on the importance of their local rivers, the issues that threaten the long term health of these rivers and the potential solutions for tackling these issues. The workshops were well attended and sparked lively and informative debate amongst a wide range of different parties. We would like to thank all those involved in the workshop sessions for their active engagement in sharing and discussing their views. The information gathered from the workshops has been a great help towards shaping the final bid.

Funding from the Heritage Lottery Fund would provide the TICP with an opportunity to undertake works over a five year period that would address the key themes of water quality, water quantity, habitats and biodiversity and in the process of doing so help engage, inform and educate local communities.

The bid is due to be submitted to the Heritage Lottery Fund at the end of May 2017 and a decision will be given in October 2107. If successful this would lead to a 'development phase' starting in 2018 and then a possible five year delivery phase.

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### TICP at Woolston

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The TICP's March core group meeting was hosted by Southern Water at their Woolston treatment works. After the meeting, members had a tour of the £63 million re-development which will lead to significant environmental improvement to the South's coastal waters.

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# CREATING OPPORTUNITIES FOR OUTDOOR EDUCATION

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It has been another successful and enjoyable year working with Winchester College and local primary schools, to introduce pupils to the River Itchen and help teach them about the their local chalk river systems and all the wonderful wildlife these rivers support.

We would like to thank the College for hosting this excellent initiative again and would also like to pass on our thanks to WCSRT's work experience placement, Harry Button, for taking time from his studies at Sparsholt College to help out.

Veronica Moore, WCSRT's new Education Officer plans to build on the success of the work with Winchester College and is already exploring other ideas and opportunities for working with schools and communities elsewhere in the region.



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## WCSRT People - New Staff Post

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### **Veronika Moore (Education Officer):**

Vee is a freshwater conservationist with a passion for citizen science, school and community education. She has experience as a project officer with the Arun and Rother Rivers Trust where she led educational activity, projects and training on water related work. She was formerly water policy officer with RSPB and has a masters degree in Environmental Management (Water Resources). Additionally qualified in photography and journalism, Vee brings a portfolio of skills and competencies to the role of Education Officer.







## River Itchen Challenge

### Cheriton Community



Over the past year, WCSRT and the Hampshire & Isle of Wight Wildlife Trust have been supporting residents from Cheriton, on the upper Itchen, with establishing a local conservation group. The group have already helped with the delivery of some of the TICP's 'Sediment Pathways' and 'Septic Tanks' projects locally and recently have been working with Southern Water on an innovative water saving project for the area, the 'River Itchen Challenge'.

Southern Water are trialling this new scheme with the communities around Cheriton to encourage residents, business and schools to use less water. If, after a year, water use is cut by at least 10%, Southern Water will share up to £50,000 to invest in local community projects.

WCSRT's new Education Officer is looking forward to exploring opportunities to collaborate with Southern Water's education team to help engage local schools and communities about the importance of the unique chalk river environments and how to help protect them by saving water.



## Water Friendly Farming

### Hampshire Avon Event

Earlier in the year, WCSRT teamed up with Frontier Agriculture to host a Water Friendly Farming Event for farmers on the Upper Avon. The event was part of the company's new 'Responsible Choice Initiative' and was aimed at demonstrating the link between the importance of the cross compliance and stewardship work being carried out on farms, with the ecological health of rivers and downstream waterbodies.

The event was hosted by the Manningford Estate and included an excellent presentation and bankside discussion with Dr Cyrill Bennett whose knowledge and enthusiasm was inspiring as ever. WCSRT are in talks with Frontier Agriculture about hosting another similar event for young farmers, later this year.



## Case Study: Rural Sustainable Drainage Systems



**Location:** Avington, River Itchen, Hampshire

**Completion Date:** Spring 2017

**Partners:** Test & Itchen Catchment Partnership, Landowner & R J Bull contractors.

### Project Objectives

- Prevent soil run-off being drained from track into the River Itchen.
- Provide simple solution for on-going maintenance.
- Ensure adequate capacity for use by heavy agricultural vehicles.

Rural Sustainable Drainage Systems (SuDS) are not a new concept, but they are still not widespread in the rural environment and could present many opportunities for improving our management of water at source. They are a collection of physical structures, used to mimic natural processes in helping maintain and manage the provision of good water quality.

Traditional drainage to manage surface water run-off is designed to carry water away quickly, without treatment, and can rapidly transfer pollutants and large volumes of water to rivers and streams. Rural SuDS slow down or prevent the transport of pollutants to watercourses by breaking the delivery pathway between the pollutant source and the receptor. By intercepting run-off and trapping sediment they help maintain and manage the provision of good water quality by preventing the loss of soil, chemicals, nutrients and faecal organisms. A further benefit is their ability to temporarily capture water and slow down flow. This can reduce localised flooding and provide valuable aquatic habitats in the form of micro-wetlands for farmland wildlife and also encourages the downward movement of water to recharge aquifers.

Rural SuDS are one group of measures that can be created with minimum loss of agricultural production. They are good examples of being able to deliver multiple benefits but need to be planned and targeted as part of a catchment based approach.

The Test & Itchen Catchment Partnership (TICP) have been utilising Rural SuDS as part of their Sediment Pathways Project. This case study, at Avington on the Itchen, is a recent example of the sorts of works being delivered through the project.

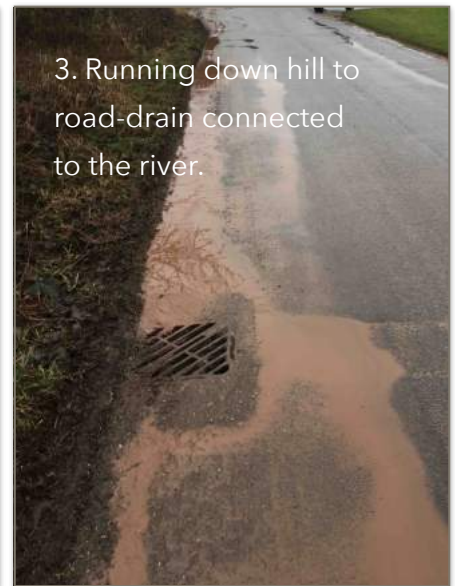




1. Sediment being lost from track.

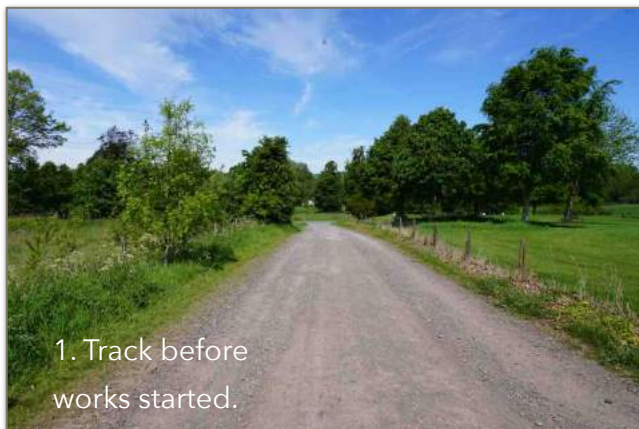


2. Collecting and pooling on road.



3. Running down hill to road-drain connected to the river.

The issue at this site was sediment being washed from a private trackway, onto a public road and into a road drain that is connected directly to the river. The solution has been to install a cross-drain on the trackway to divert water into a historic reception pond. The cross-drain was created by cutting and breaking out a trench and installing prefabricated 6 metre ACO M200 multi-drain sections with a 200mm grill width. This was linked to the reception pond by laying 50 metres of 150mm pipe across the corner of the adjacent field.



1. Track before works started.



2. Cross drain under construction.



3. Fifty metre run of pipe, to the outflow, being buried.



4. Historic ditch into which outflow to be discharged.





5. Completed cross- drain

The completed cross-drain will be monitored this winter and maintained by the landowner into the future. We would like to thank the Environment Agency and the landowner for helping fund the works and the contractors RJ Bull for delivering an excellent job. If any WCSRT supporters are aware of sites where rural SuDS could be used to help address sediment run-off then please get in touch.

## CONGRATULATIONS!

Finally, WCSRT would like to extend their congratulations to all those who helped the River Avon Restoration Program achieve this year's Catchment Restoration Award and National River Restoration Centre Prize.



WCSRT Trustee Fiona Bowles, third from right and Director, Paul Jose, in charge of the Champagne, front left.

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