

The Bristol Avon Rivers Trust (BART)

The natural world is vital for our health, economic activities and wider wellbeing. Rivers in particular have a key role to play in all these aspects, their various fords, hams, mills, mouths and bournes often defining the places we live and the activities that occur within and around them.



The Bristol Avon River Trust (BART) has a mission to achieve "A Clear Future for our River". The emphasis on 'our river' reflects the role of this river system in supporting the livelihoods, recreational enjoyment, education, domestic and industrial use and other benefits that the river confers upon us all.



BART was founded as a charitable organisation in February 2012 to build on the local interest and work taking place to protect the network of rivers and streams collectively comprising the Bristol Avon catchment in the west country of England. We aim not to replace any of the excellent initiatives occurring across the wider Bristol Avon catchment, but to help bring about greater coherence and coordination, and to help bring about strategic river improvements beneficial to river ecosystems, their wildlife and enjoyment, economic interests and heritage.

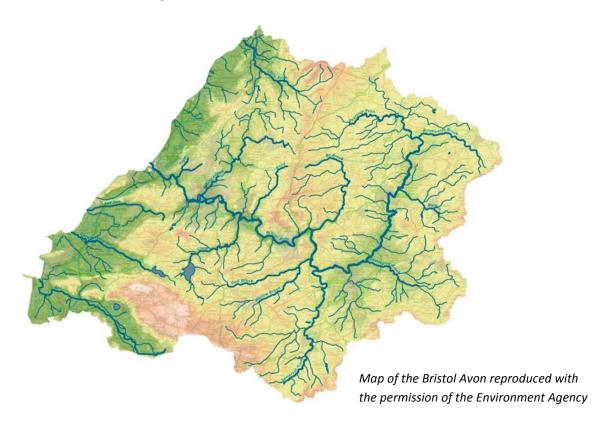
As a charity – not a profit-driven commercial body – our focus is on improving the quality of our river system for all who enjoy it, now and into the future. Just some of the ways we are trying to achieve this include:

- Taking a catchment-based approach to address strategic river improvement
- Working with land managers to protect and improve the waters that their activities affect
- Practical habitat enhancement works on the river systems
- Research to explore how best to manage landscapes and their rivers
- Influencing policy for better outcomes
- Coordinating the enthusiasm and activities of volunteers
- Public talks, engagement days and other outreach activities
- Partnerships with universities and other educational activities
- Publications

We need your help and involvement to expand the positive impact of these activities.

The Bristol Avon

The Bristol Avon rises from two principal sources on the Cotswold Hills either side of the Wiltshire/Gloucestershire border, respectively forming the Sherston (or Luckington) Avon and the Tetbury Avon. These are joined throughout the river's course by numerous tributary subcatchments throughout Wiltshire, BANES, North Somerset, South Gloucestershire and Bristol, traversing towns and cities including Malmesbury, Chippenham, Trowbridge, Bath and Bristol before joining the sea at Avonmouth. The main stem of the Avon flows in a half-circle course such that, although the river's source lies just 19 miles (31 kilometres) as the crow flies from its mouth, the river is in fact the 19th longest river in the UK at 75 miles (121 kilometres).



The catchment area of the Bristol Avon encompasses 2,220 square kilometres (860 square miles) of mixed farmland, major cities and small towns, and is crossed by significant infrastructure including the M4 motorway, mainline railway tracks, and the Kennet and Avon canal.

All of these factors bring a range of competing pressures to bear on the river system and its ecosystem, including:

- Demands for water
- Flood risk management
- Demands for land use for food production, housing and other economic activities
- Protection of wildlife, fisheries and heritage
- Pollution by soil loss, sewage, nutrient enrichment and other issues
- Navigation

This is why an overview of the Bristol Avon catchment and its many users and beneficiaries is so important: a role BART seeks to serve.

BART and the bigger picture



BART is part of a nation-wide network of Rivers Trusts championing river catchments throughout England, Wales, Scotland and Ireland, for which there is also an umbrella body known as the Rivers Trust.

Across England, Rivers Trusts are working with government to deliver a Catchment Based Approach
(CaBA). CaBA is a Defra (Department for Environment, Food and Rural Affairs) policy framework giving power to local communities to develop their own Catchment Plans, working in partnership with the Environment Agency, other government organisations, water companies, voluntary organisations, and local groups and people. CaBA catchment partnerships across England encourage the sharing and adoption of best practice in stakeholderled catchment management planning, delivery and evaluation, intended to achieve a joined-up vision for catchment management.



A number of research projects have demonstrated how catchment area partnerships, comprising diverse stakeholders and technical specialists from in and around a catchment, can be responsible for coordinating the planning, funding and delivery of good ecological health for that river and its catchment.

They have also shown us that an integrated stakeholder-driven assessment of a catchment will enable us to develop a comprehensive understanding of the challenges we face and, following this, to develop a strategic, targeted, balanced and therefore cost-effective catchment management intervention plan.

The Bristol Avon Catchment Partnership is being hosted by <u>Avon Wildlife Trust</u> (on behalf of the <u>Bristol Avon Catchment Group</u>) and the Avon Frome Partnership.

The Bristol Avon Catchment Group is a consortium of organisations who are working together to implement a Management Plan for the Bristol Avon River Catchment, with the aim "...to develop a collaborative plan to deliver a healthy, functioning, river environment across the catchment".

BART is part of this partnership. We view ourselves as a delivery partner, working with wider networks of organisations and volunteers to bring the CaBA and the catchment strategy to life through practical improvements throughout the river system.

We achieve this though a range of activities with partner organisations and individuals, some of them listed on the following pages.

BART activities

BART operates in partnership with a range of bodies to help us drive towards our mission of "A Clear Future for our River". Just a few snapshots of these activities are outlined below.

BART Beacons:

BART has established a network of Bart Beacons, a very special type of volunteer serving as 'eyes and ears' along their local stretch within the Bristol Avon catchment. This team provides invaluable information about the state of our rivers, with willing Beacons ranging from local dog walkers to anglers and angling clubs or bird watchers and conservation groups who visit the area regularly. As local people, they are uniquely placed to spot 'anything unusual', ranging from pollution to declining wildlife or eroding river banks, and to build on links with other local interested parties. BART shares the information we receive and our knowledge of river habitats and wildlife, and can also provide advice about the formation of groups and how to apply for funding for small community-led projects.



Wessex Water/Tortworth Estate exploration of the potential of wetlands (a Defra and Wessex Water-funded research project):

The Tortworth Brook project was led by BART as a collaboration of many players, setting out to explore the possibility of using wetland systems to treat the effluent from Cromhall sewage treatment works (STW) using a method of finance known as Payments for Ecosystem Services (PES). Like all STWs, Cromhall effluent contains high levels of phosphates, mostly from washing powders and human wastes, which cause environmental damage and cause water quality in the Tortworth Brook to fail standards required by European legislation. Traditional methods for removing phosphates are expensive to build and run, use substantial amounts of energy and chemicals, and produce waste. Wetlands can be used to remove phosphates and other contaminants with many additional benefits. However, they require more land, which the Tortworth Estate may be willing to supply in a mutually advantageous arrangement with Wessex Water.



Outfall from Cromhall STW into the Tortworth Brook (©Mark Everard, 2012)

The By Brook project:

During 2012 and 2013, BART worked with Area staff from the Environment Agency to identify and agree a sub-catchment within the Bristol Avon area in which to carry out a collaborative river restoration project. The sub-catchment identified was the By Brook, running from near to the M4 motorway through Castle Combe and joining the main stem of the Bristol Avon at Batheaston. BART acted as a delivery partner to the EA to help identify measures contributing to improving the quality of the By Brook, which is currently well below legal and river user requirements. Problems arise from motorway drainage, poor livestock-based and some maizegrowing agricultural practices, and physical modifications to the river for milling activities. No water milling continues today. Aside from poor chemical and biological quality, old structures create barriers to fish migration though a confounding factor (and an important consideration) is that some weir structures may block the passage of invasive species (particularly signal crayfish) and also have some heritage value. BART has undertaken extensive walkover surveys, with data captured on a GIS database, as well as widespread engagement with farmers, landowners and local interest groups. We are doing this with a view to planning improvements, such as enabling fish passage and the protection of some river banks from stock trampling.



A weir on the By Brook, one of several that may reduce fish passage on the sub-catchment

Love Your River: Kids' Activity Day:

To promote an interest in the By Brook amongst future generations, BART ran a 'Love Your River' day on 12th April 2014 for school children and their parents in Box village hall. The sunny weather on the day brought out a number of active kids and their parents to what was amongst BART's first engagement events. The 'Love Your River: Kids' Activity Day' attracted over 30 children with their parents to participate in fun river-related activities. BART along with the Environment Agency, the Avon Invasive Weed Forum, the Wild Trout Trust, and Wiltshire Wildlife Trust had stands with fun and interactive games, including creating your own farm model, badge making, Easter bunny hunt, and trays of river bugs to look at and identify. The most popular of all, however, was the *emriver* model that provides a way of simulating normal river processes such as sediment transport and deposition. It also provides a way of visualising the impacts of different river and riparian issues such as the impact of weirs, and the effect of dredging. The model is both educational and fun and certainly kept most of the children captivated for hours!



Local children enjoy a day out at the Love Your River event

Wild Sherston (16th to 18th May 2014):

BART supported the Wild Sherston event in the Wiltshire village of Sherston, where the Sopworth Avon and Luckington Avon join to form the main Sherston Avon tributary of the upper Bristol Avon. BART participated actively through display boards, invertebrate displays, in-river invertebrate monitoring sessions, public talks, river walks, and otherwise engaging with local people and other exhibitors with an interest in the local environment. We also took part in a live broadcast interview with Radio Wiltshire. Funding for the invertebrate monitoring equipment was kindly provided by Malmesbury Area Board of Wiltshire Council. The event proved to be a good way to get local people and organisations involved in our Upper Avon Initiative. The fine weather was certainly a boost to participation!





Upper Avon Initiative Project:

This exciting project is being undertaken as part of an industrial placement within an MSc in Environmental Consultancy at the University of the West of England (UWE). The project targets the Sherston and Tetbury Avon and the main river downstream to Sutton Benger, as well as smaller tributaries running into the river within this area. Recent policy changes encourage the re-naturalisation of rivers and streams, with an emphasis on a whole-catchment approach. The Upper Avon Initiative seeks to bring all these plans to life at a local level, finding out what local people and community groups want to see happening with their rivers whilst, at the same time, connecting with higher-level targets and plans. The Upper Avon Initiative is a voluntary project to improve the rivers and streams in the Upper Avon, involving meeting up with lots of people - from dog walkers to anglers, local nature groups, local landowners and local businesses – to find out their views of their rivers, including what they want more of or less of. The interim product will be a document setting out learning outcomes, including what is being done to improve the river and what people think needs to be done. Most importantly it will contain a list of contacts that wish to be involved in helping make improvements to their river. (BART would like to thank Wessex Water for their support to enable this initiative to take place.)



Bristol Avon River Fly Monitoring Initiative:

BART has worked in partnership with other organisations, significantly including the River Fly Monitoring Scheme hosted by Wiltshire Wildlife Trust and also a wide network of volunteers, to start developing a river fly monitoring network across the Bristol Avon catchment. We are doing this in order to keep our finger on the pulse of river health.

Within this initiative, we have undertaken targeted projects on the By Brook and also run a volunteer day to promote people getting trained and 'out there' doing mapping and fly monitoring.

BART is grateful to the Malmesbury Area Board for allocating us a grant of £2200, from Wiltshire County Council resources, to purchase river fly sampling equipment to give to our volunteers. With more such grants, we could of course do more river fly monitoring!



Spawning habitat improvement (September 2013):

The Strategic Environmental Planning (SEP) team from the Environment Agency's national office took time away from their spreadsheets on 18th September 2013 for a day's 'Environmental Leave', spent with wellies on restoring river habitat in the upper Bristol Avon. This reach of the Avon below Malmesbury was assessed under the Water Framework Directive (WFD) as at 'poor' ecological status; habitat improvement can make a positive contribution. The day was supported by the Wild Trout Trust (WTT), which had already undertaken a site visit on behalf of the Somerfords Fishing Association (SFA) reporting on existing habitat with recommendations for improvements. The SEP proved to be a keen working party to put the WTT's suggested improvements into effect, and the work was led on the day by Mike Blackmore of the WTT. The net result of the day was conversion of a bend in the river with good spawning habitat potential, but of suboptimal value due to shading out by trees and over-widening and siltation of the gravel bed, into functional spawning and nursery habitat. This included cutting out some of the shading by sallow bushes and willow trees, thinning selected bank top bushes to allow in additional light, building a current deflector (achieved by 'hinging' the sallows/willows, pinning them with chestnut posts and packing with live willow) to accelerate flows, pinning logs to the river bed to promote scour that opens up the gravel structure, and reinforcing the opposite bank to prevent erosion and provide additional fry habitat.



Completed job: deflector on the left, scouring logs on the riffle, and faggots against the right bank (Image © Mike Blackmore)

The Riverside Angling Club, Malmesbury:

BART has worked in partnership with the Riverside Angling Club, which controls angling in a stretch of the Bristol Avon below Malmesbury. Our work with the Riverside Angling Club to date includes:

- Advising the club of the availability from the Environment Agency of barbel for stocking, and on the best place for these young fish to be introduced.
- Walking the stretch with Club members to talk about potential river habitat improvements, and subsequently designing a buffer zoning scheme to allow the regeneration of habitat with good spawning potential that was at the time compromised by animal trampling.
- Tipping the Club off about the availability of some funds to carry out these habitat improvement works, from which the Club subsequently secured a grant.



A net full of healthy young barbel being introduced into their new home in the upper Bristol Avon

The Somerset Frome:

We are developing partnerships with angling-led interests and with the Friends of The Frome in the Somerset Frome catchment. The Frome rises near Witham Friary in Somerset and is joined by several tributaries before joining the main stem of the Bristol Avon near Freshford. There are many weirs throughout the course of the river. BART is working with its partners to identify opportunities for habitat improvements, and funding sources to progress them.



The Wellow and Cam:

BART is also responding to interests in river improvement in the Wellow and Cam catchments. BART has being carrying out preliminary walkovers and mapping of stretches of the Wellow and Cam in preparation for a project which will start later in 2014. At this stage, we are primarily collecting data to form an outline plan of needs and possibilities, and meeting local people who have the knowledge and contacts we will need to get things done. We are also working with the Wild Trout Trust to plan the removal of three boulder weirs on the Wellow and to help find the funds to make this happen.



BART: now two years old!

BART celebrated its second birthday in February 2014. We have no pretensions that we are yet a big or well-resourced organisation. But we are keen, we are increasing in size and capability, and we are particularly keen to work in partnership towards achieving 'A clear future for our river'.

We are, however, growing. Back in February 2012, two of us founded BART as a limited company, with the longer-term aim of evolving into an influential voluntary organisation that could bring together the efforts and enthusiasm of a range of partners. This led to a period of growth, the attraction of some brilliant and enthusiastic champions and volunteers, and the landing of a number of projects, some highlighted above, that proved our track record as an effective delivery partner.

In 2013, we became a registered charity.

Our accounts for the year ending in March 2014 show that we have grown into an organisation that, whilst still small, had a turnover of nearly £170,000. This was achieved by carrying out partnership projects within the catchment, enabling us also to contribute in-kind contributions worth over £25,000 to these and other practical environmental improvements and initiatives.

Today, we have three Directors, who are also Trustees of the charity.

- Dr Sid Jevons (Chairman)
- Dr Mark Everard (Founding Director)
- Ruth Barden

Our management team is led by our Trust Manager and Company Secretary, Ian Mock, and includes catchment management specialists, land management advisors, water quality professionals, project management experience, environment consultants, legal advisers and ecosystems services expertise.

How to get involved with BART

No matter whether you are an angler or naturalist, keen amateur or hardened professional, a business, a school a Council or just someone with an interest in our shared home river, we'd welcome you to get involved with BART.



Here's how:

W: www.bristolavonriverstrust.org

E: info@bristolavonriverstrust.org

Please contact us for more information or to get involved.

BART would like to thank all of its many partners

In our efforts to achieve our mission of "A Clear Future for our River", BART is promoting a catchment-based approach in which we engage for mutual benefit with a long list of partner organisations and individuals at strategic and local levels. Just some of these partner groups within the catchment, championing different interests in the system, include:

- The Malmesbury Area Board and Wiltshire County Council, both of which have supported our work and offered us some grants to support out river fly monitoring work.
- The <u>Environment Agency</u>, the statutory environmental regulator for England with many duties relating to the water environment ranging from flood management to licensing of fisheries and pollution control, is a key partner in co-delivering common objectives.
- We work closely with water service companies in the Bristol Avon catchment area, including Wessex Water and Bristol Water.
- Wiltshire Wildlife Trust and Avon Wildlife Trust are long-established NGOs championing
 wildlife and sustainable living, sharing many common interests and constituting key partners
 in many BART activities.
- The Wild Trout Trust and the Rivers Trust are key delivery partners.
- A variety of fishery interests, including private owners, syndicates and larger clubs of which a
 number currently collaborate with BART activities to improve fish access, spawning and
 refuge and overall environmental condition. We have worked directly with the <u>Bathampton</u>
 <u>Angling Association</u>, Friends of the By Brook, <u>Friends of the Somerset River Frome</u>, By Brook
 Fly Fishers, the <u>Riverside Angling Club</u> and many others.
- The Angling Trust is a national coordinating body which has links with BART.
- Regional universities forming partnerships with BART, through both research, learning and volunteering activities, including <u>Bath Spa University</u> and the <u>University of the West of England</u>.
- Local wildlife groups including the Malmesbury River Valleys Trust.
- Most importantly, BART is grateful for collaborations with, all the landowners and the wider farming community, without whose support we would have achieved nothing.

This list is, by its nature, incomplete and still growing.

BART is grateful to all its partners sharing in our vision of "A clear future for our river".



Targeted measures to provide a clear future

As you will see from the previous pages, BART is undertaking a diversity of projects with partners across the catchment to help achieve "A clear future for our river" for the benefit of all. Here are some of the practical improvement measures that we can help bring about:



Stock trampling damages river banks, the quality of the water and wildlife, and poses risks to farm animals



Fencing stock from banks protects the river, its fish, wildlife and water quality, also benefitting farmers



River habitat improvements for fish include structures that help flush silt from potential spawning gravels



Results include improved natural regeneration of fish stocks, with wider benefits for wildlife and people



Impassable weirs present a particular challenge to restoring healthy fish stocks and other wildlife



Thanks to all our partners.

Please get in touch if you want to get involved!