

Warwickshire Avon Catchment Plan



Severn
Rivers Trust
Preserving and Caring for the Severn Catchment



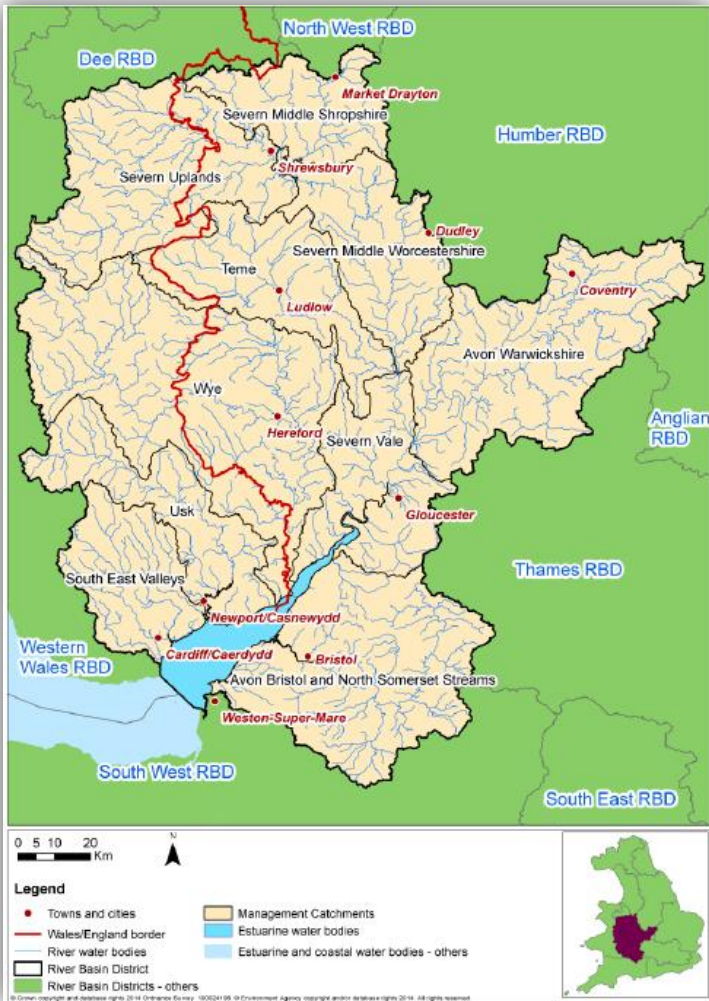
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Warwickshire Avon Catchment Vision:

Our vision is for a sustainable catchment of healthy rivers with functioning floodplains, resilient wildlife habitats and appropriate access, with people actively caring for and valuing their natural environment and heritage.

Location



The Warwickshire Avon catchment lies within the River Severn Basin District and is the most easterly sub catchment.

Figure 1: River Severn Basin District (EA Catchment Summary)

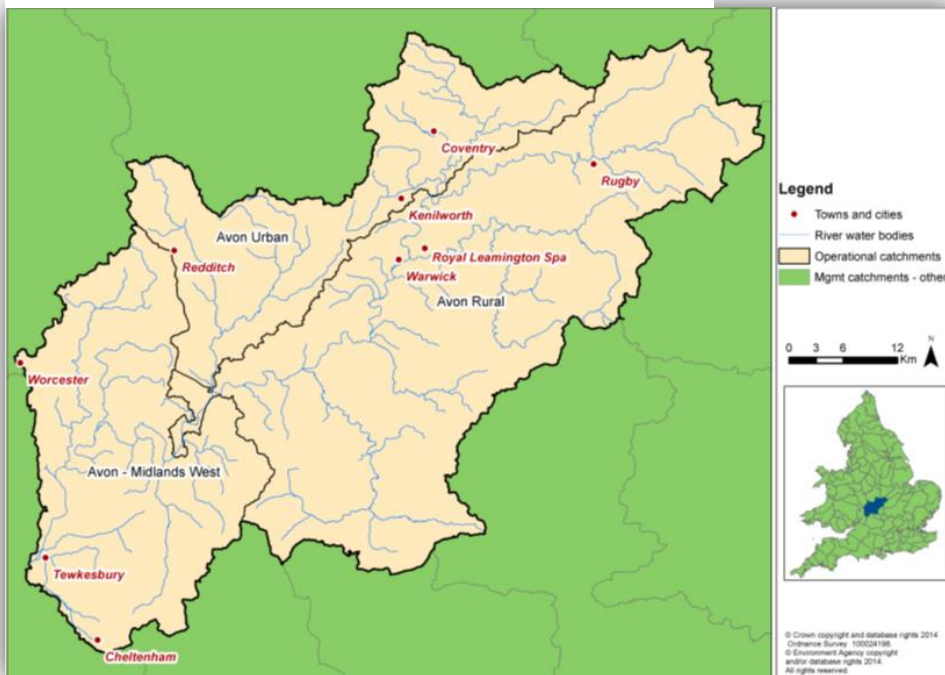


Figure 2: Warwickshire Avon Catchment showing the three operational catchment boundaries (EA Catchment Summary)

Warwickshire Avon Catchment Partnership & CaBA

The Catchment Based Approach (CaBA) is a Government policy framework that empowers local action to improve the water environment through community partnerships. A renewed focus on the catchment based approach has led to Catchment Partnerships being set up to drive local delivery. The Warwickshire Avon Catchment Partnership (WACP) was initiated in 2014.

Partners:

Campaign for the Farmed Environment, Country Land and Business Association, Coventry City Council, Environment Agency, Forestry Commission, National Farmers Union, Natural England, Severn Rivers Trust, Severn Trent Water, Warwickshire County Council, Warwickshire Rural Hub, Warwickshire Wildlife Trust, Woodland Trust, Worcestershire Wildlife Trust.

Description of Catchment

The Warwickshire Avon catchment extends from the source of the River Avon near Naseby east of Rugby to its confluence with the River Severn near Tewkesbury, and includes tributaries such as the rivers Alne, Arrow, Leam, Stour and Swift. It is a largely rural catchment holding a population of around 800,000 with some large urban conurbations, notably: Coventry, Redditch, Rugby, Stratford-upon-Avon, Tewkesbury and Warwick. The catchment has a high value for wildlife and the area provides a variety of recreational activities including boating, canoeing, fishing and walking. Agriculture accounts for a high proportion of the land use including arable, livestock, horticulture, and market gardening around Evesham.



Figure 3: Canley Brook, Coventry – Common representation of Coventry’s watercourses. Section exhibiting an artificially straightened, flat river bed lacking in pools, riffles and naturally formed river features
photo © Tim Precious, Warwickshire Wildlife Trust

The Warwickshire Avon catchment is characterised by low-lying undulating hills. There is a long history of flooding, but the dispersed nature of the settlements has meant traditional flood defence schemes have often not been viable.

Water within the catchment is abstracted primarily for public water supply, agriculture and industry. Draycote Water, which receives water from the rivers Avon and Leam, is the largest water supply reservoir in the area and the principal aquifers in the catchment are important sources of drinking water. These are at risk from pesticides originating within the catchment.

Rivers and wetlands in the Warwickshire Avon catchment are vital for wildlife but they are also invaluable to society for reasons beyond the wildlife benefits they bring. They store floodwater, such as at Brandon Marsh SSSI Wetlands alongside the River Avon in Coventry. They provide recreation and tourism opportunities; towns such as Stratford upon Avon and Warwick are major international tourist destinations benefiting immensely from the River Avon and its accessibility.

Wetland habitat improves water quality by filtering pollutants and removing excessive sediment such as the farmland scrapes created on the Bow brook in Worcestershire <http://www.worcswildlifetrust.co.uk/water-wetlands/bow-brook-project> and the Longford Community Nature Park Project which restored 2500m² of defunct reedbed alongside the River Sowe in 2014 helping to filter pollutants running off the M6 and A444. <http://www.warwickshirewildlifetrust.org.uk/what-we-do/projects>



©Tim Precious 2014

Figure 4: Created agricultural run off holding pools in Bow Brook Catchment



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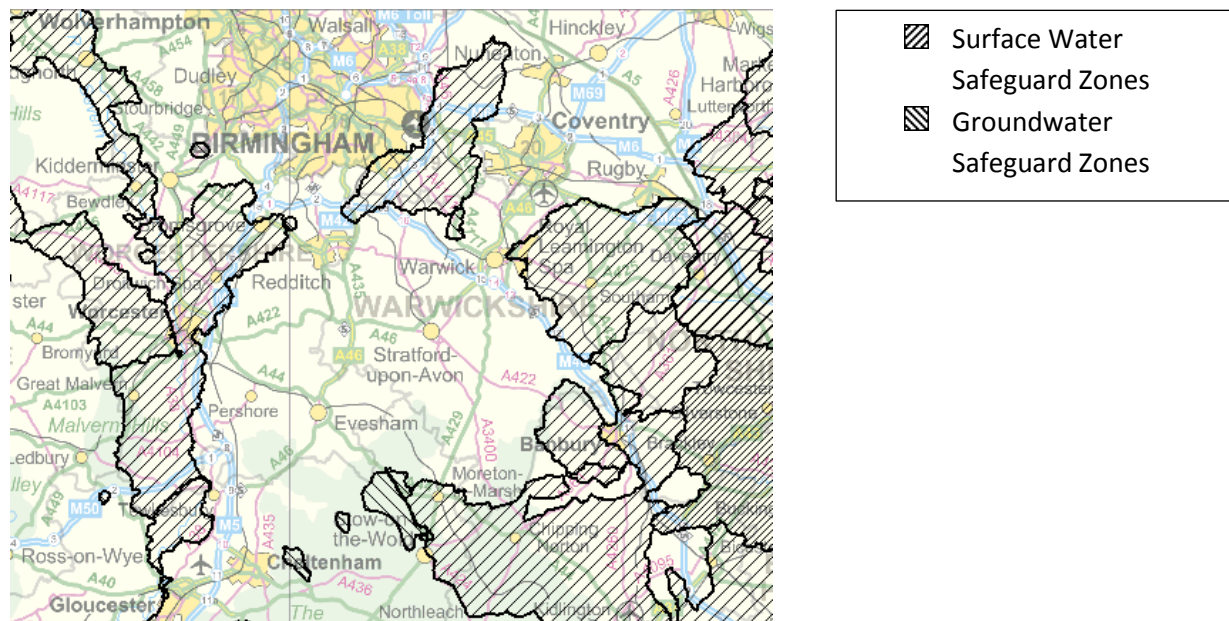
Figure 5: Longford Nature Park Reed bed Restoration during excavation work, March 2014

They can also act as the focus for raising awareness of flooding issues in local communities which local groups including Shipston Area Flood Action Group are continuing to progress.

The management of every parcel of land, small or large, in rural or urban areas can help to reduce flood risk for the 800,000+ people living in the Warwickshire Avon catchment.

Protected Areas

There are areas in the catchment where the water environment is recognised as being of particular importance because of the benefits they provide to society including rare wildlife habitats, bathing waters or areas around drinking water sources.



Main Issues with Catchment

The Warwickshire Avon Catchment Partnership recognises that this catchment is a large and complex system of interlinked and interdependent rivers, canals, wetlands and water bodies affected by many different land uses.

There are 91 river water bodies and 3 lakes in the catchment. Environment Agency data in 2015 reveals only 18% of rivers currently achieve a 'good' overall status; the majority are classed as 'moderate' with 18% classed as either 'poor' or 'bad'. (Catchment Data Explorer) These classifications are based on multiple 'elements' such as; number and diversity of fish, dissolved oxygen levels, phosphate levels etc.

The Environment Agency assesses the data gathered and formulates reasons why the watercourses are not reaching an acceptable quality. This data provides evidence and focus for WACP to formulate priorities and strategy and assist in delivering considered actions.

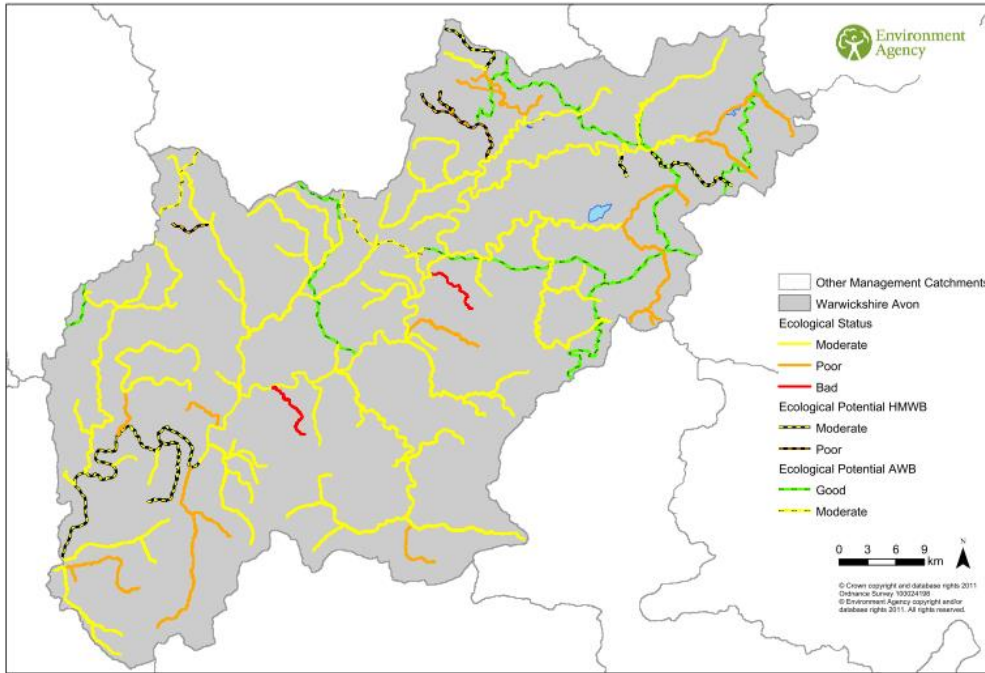


Figure 7: Map showing WFD ecological quality status of Warwickshire Avon watercourses (EA Warwickshire Avon Management Catchment)

Some of the main reasons for rivers not reaching an acceptable quality identified by the Environment Agency (EA) in 2015, were pollution from rural and urban areas, physical modifications, including barriers to fish movements such as weirs, narrow riverside habitat or 'buffer strips' (includes increase of soil run off and bank erosion) and invasive non-native species.

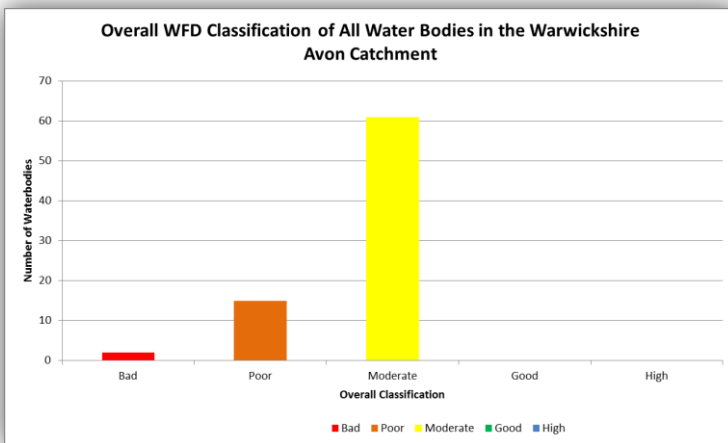


Figure 8: WFD overall classification in Warwickshire Avon Catchment (EA Catchment Data Explorer)

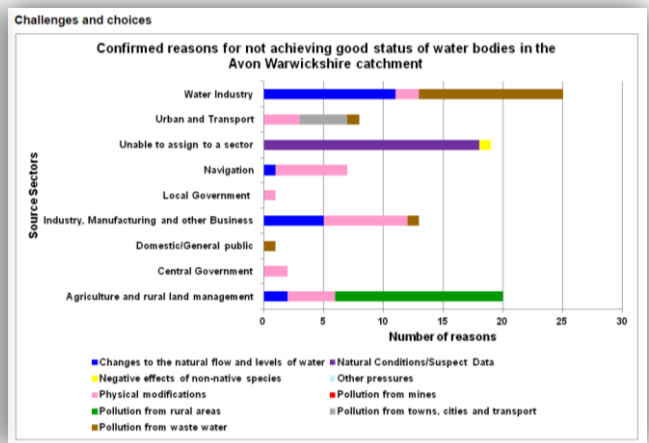


Figure 9: Reasons for Not Achieving Good for each Source Sector (EA Challenges and Choices 2013)

Strategy

Data shown in figure 7 from the EA highlights the need for the partnership to prioritise work on both urban diffuse and rural diffuse pollution as these are the main reasons rivers are not reaching internationally agreed acceptable levels. This is supported by the consultation response from the EA Choices and Challenges report 2013 which also identified pollution from urban and rural areas as some of the main challenges to the Warwickshire Avon catchment.

The Partnership can actively impact upon Urban and Rural diffuse pollution sources through engagement and on the ground enhancements.

When working on restoring or enhancing detrimental physical modifications WACP will focus on priority sub catchment areas, listed below, where quick win solutions can be achieved or where impetus to deliver river enhancements already exists such as Coventry and Shipston on Stour. Linking up potential projects to form connecting habitats is desired to maximise benefit to cost ratio and deliver catchment wide improvements. WACP will prioritise any work to remove invasive non-native species issues occurring in the upper reaches of the catchment in order to reduce the cumulative negative effects on lower reaches. There will be a focus on working in the downstream reaches to resolve barriers to enable fish to gain access to greater lengths of river more swiftly.

Severn Trent Water is working as the main water company in the catchment to resolve issues arising from changes to the natural flow and levels of water. Through employing agricultural advisors it is also targeting reducing pollution from rural areas. By using more considered practices, landowners are able to reduce elements such as excessive soil run off and high phosphate inputs which are shown to be some of the main reasons behind rivers in the Warwickshire Avon catchment not meeting internationally agreed acceptable levels.

Priority Sub-Catchment Areas:

- Coventry Brooks and Rivers
- River Stour, Shipston (including Nethercote Brook tributary)
- Rains Brook
- River Alne Source to Confluence with Preston Bagot Brook
- Noleham Brook
- Tach Brook
- River Arrow
- Upper River Leam
- Upper River Avon

There are other localised areas with important aspects of need.

Using the protected and priority areas designated by the Environment Agency and cross referencing these with 2015 WFD data for waterbodies will identify more strategic and targeted water bodies to enhance.

Priorities for 2016 - 2018:

1. To co-ordinate action through liaison with a range of partners.
2. Identify watercourses where action will yield maximum effect and multiple benefits within the catchment by July 2017. Multiple benefits would include enhancing ecological condition, addressing flood issues, and promoting involvement and education on catchment priorities.
3. To liaise with landowners to engage their active support with practical projects and facilitate the creation of more feasibility studies for larger scale flood risk reduction or river enhancement schemes.
4. To inform stakeholders and the public of priorities, planned actions and achievements online and through social media.
5. To deliver practical improvements in at least two priority sites per year across the catchment and priority areas, and use these as demonstration sites to encourage further action.
6. To work to secure funds and resources to deliver projects on the ground.
7. To engage with major stakeholders and developers to deliver enhancements

Delivery Action Plan

This is a rolling programme of projects being developed and delivered in the catchment.

The Delivery Action Plan is developed and agreed at Catchment Partnership meetings. This will be updated annually as projects develop. Please follow the link to the Warwickshire Avon CABA webpage. <http://www.catchmentbasedapproach.org/severn/warwickshire-avon>

Monitoring and Evaluation Plan

It is important to ensure that action is being monitored and assessed to gain best value and multiple benefits from projects, and to learn for future delivery.

The Catchment Partnership will contribute to the CABA reports and evaluation annually. Individual projects will be measured by the outputs identified, and the delivery methods used will be evaluated and reported on. Scientific, citizen science and volunteer monitoring will be used as appropriate to measure success of projects. Engagement of people and organisations will be monitored via the partnership and via responses to consultations on the Catchment Plan and development of new projects.

The Delivery Action Plan will be reviewed at least annually in summer to allow for inclusion of projects in forward budgets, and to update the list re completion of projects and development of new proposals. The Plan priorities will be reviewed in 2018, and the text of the plan will be reviewed in 2019.

Examples of Catchment Partnership Work

There is a detailed Leam Catchment Plan and the executive summary highlights the following actions required:

- Reduction in phosphate and pesticide levels
- Improvement in the quality and range of habitats including sustainably managed woodlands
- Restoration of modified sections of watercourse

For details see Sub-catchment Plan - River Leam 2012

(<http://apps.warwickshire.gov.uk/api/documents/WCCC-966-428>)

The sub-catchment plan was developed by Warwickshire Avon Catchment Partnership which is a good example of partnership work.

Coventry Brooks Plan

One of the main bodies of work was the development of the Coventry Brooks Plan which involved walkover surveying all watercourses in Coventry in late 2012/early 2013. Each watercourse was assessed for: habitat quality, outfall locations, pollution incidence and the potential for enhancement projects were also considered. As Coventry is one of the strategic Catchment priority sub areas, the Coventry Brooks Plan will continue to be a very useful resource for the partnership. It has helped to identify in detail which watercourses are in need of enhancement and where enhancements are possible.

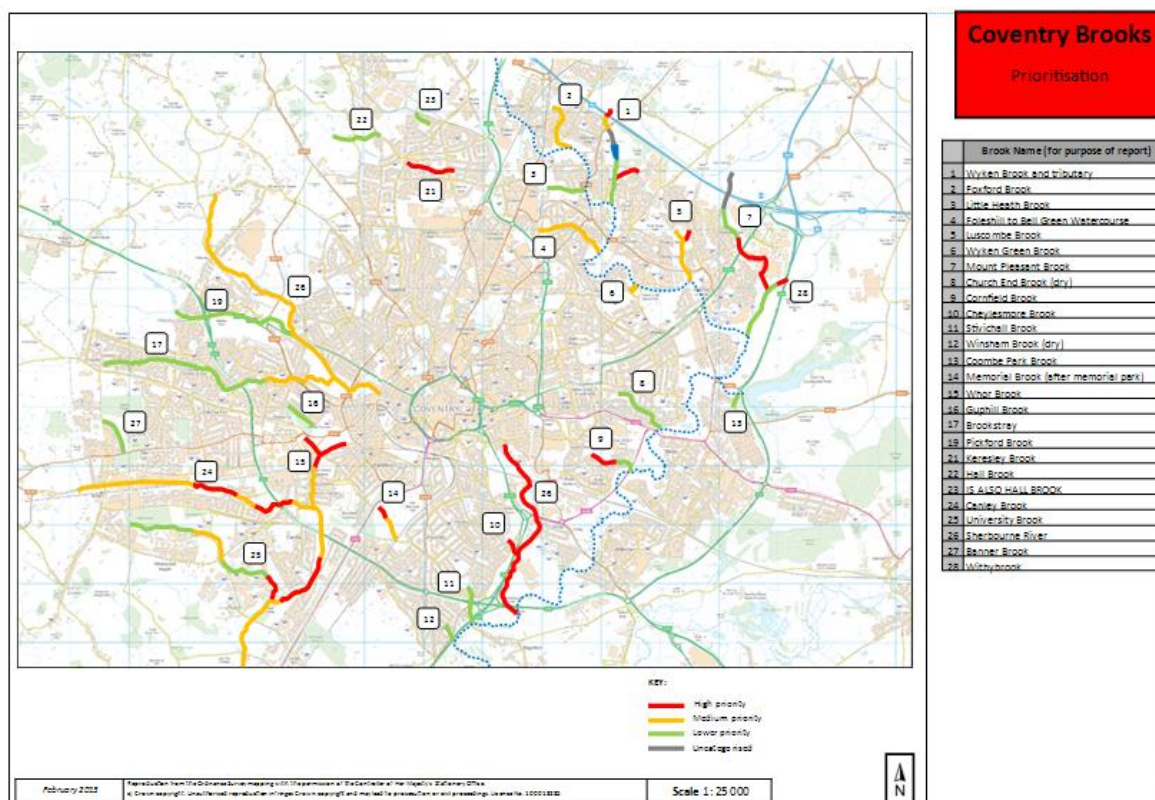


Figure 10: Coventry Brooks map showing priority for enhancement on all watercourses in Coventry (Coventry Brooks Plan, Warwickshire Wildlife Trust, produced for EA)

Engagement and Advice

There are already a number of active partnerships and successful engagement projects that have occurred and are ongoing throughout the catchment. One good example of early WACP work is 'The Leam Partnership Project' which works to improve the understanding amongst farmers of diffuse water pollution from agriculture, in particular its impact on biodiversity and the quality of water abstracted for drinking water. We are using existing projects to engage with stakeholders, particularly landowners and farmers and will work towards identifying potential sites for practical projects e.g. flood plain reconnection and fencing to prevent excess sedimentation.

Projects in 2015/2016

The **Catchment Partnership Action Fund (CPAF)** enabled WACP to undertake two projects in 2015/16.

1) Worcestershire Wildlife Trust re-naturalised a section of the river Arrow at Pikes Pool and re-connected historic pools to create fish refuge and enhance site biodiversity. Additional river enhancement through the installation of woody debris greatly assisted in improving flow diversity and bed heterogeneity.

2) Warwickshire Wildlife Trust has enhanced a stretch of Guphill brook in Coventry, one of the priority areas highlighted by 'WACP'. The project with CPAF and match funding, created multiple online backwater pools to improve fish and water vole refuge and enhance habitat diversity. The banks have been reprofiled to restore a more natural flow, increased area of fish spawning gravels and in stream vegetation. More information on this project can be found at: <http://www.warwickshirewildlifetrust.org.uk/what-we-do/current-projects/river-restoration-guphill-brook>

Catchment Partnership Consultation

Public Workshops: To support work on developing an overarching Warwickshire Avon Catchment Plan, the partnership held 2 Public Workshops in September 2014 with a total of 69 attendees from a range of stakeholders.

Existing and planned projects were recorded, and over 100 ideas were suggested to address the issues in the catchment. These will inform the next steps of progressing projects on the ground. The overarching ecosystem services map results were discussed. All stakeholders expressed the importance of actions being implemented.

The results from these workshops have been summarised into a report and will be made available on the Warwickshire Avon Catchment Based Approach website.

Communications

Information and reference documents about the Catchment Partnership can be found on the CABA website at: <http://www.catchmentbasedapproach.org/severn/warwickshire-avon>

Help to care for your local catchment

There are many ways for you to get involved in your local catchment:

- Through hands on volunteering. See contacts below.
- By having your say on decision making e.g. from Council surface water management plans to Governmental organisation plans such as Environment Agency River Basin Management Plans during consultation periods
- By taking up grant funded opportunities to assist in catchment wide initiatives
<https://www.stwater.co.uk/category/1560>
Countryside stewardship grants for landowners and farmers from Natural England
<https://www.gov.uk/countryside-stewardship-grants>
- By reporting pollution incidents rapidly to: Incident hotline **0800 80 70 60** open 24 hours

There are practical hands on volunteering or education and engagement opportunities through your local Wildlife Trusts, Rivers Trust and other volunteer and community organisations.

More information can be found at:

<http://www.worcswildlifetrust.co.uk/volunteer>

<http://www.warwickshirewildlifetrust.org.uk/volunteer>

<http://severnriverstrust.com/about/volunteering/>

This list is not exhaustive and if you have any queries or further opportunities for people to get involved in the Warwickshire Avon catchment please use the website addresses above to find the relevant person or contact the CaBA lead; details are given below.

Contacts

Gina Rowe, Warwickshire Wildlife Trust (Living Landscapes Manager) & Warks Avon CaBA lead contact: e. Gina.Rowe@wkwat.org.uk t. 024 7630 2912

Severn Rivers Trust: www.severnriverstrust.com

WACaBA Website: <http://www.catchmentbasedapproach.org/severn/warwickshire-avon>

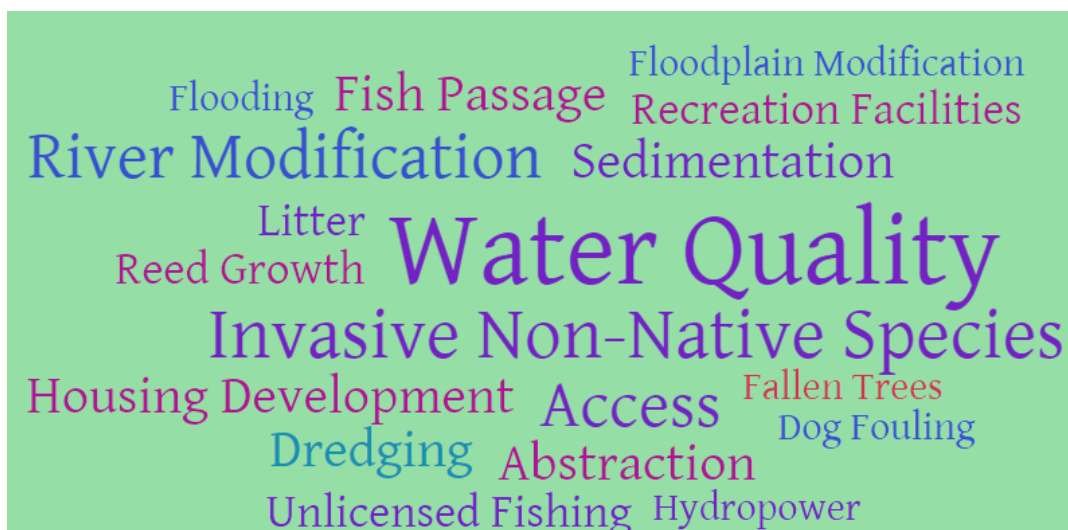


Figure 11: Word map created from Warwickshire Avon consultation events in 2014