

What's Beane Happening?

The newsletter of The River Beane Restoration Association
Issue No 29 Winter 2021



Welcome

In our last issue we mentioned that our chairman, Dave Stimpson, or Mr Beane as he has sometimes been referred to in the past, would be retiring at the AGM which was to be held by Zoom. Dave has been a member of the RBRA since it was formed 29 years ago and chairman for most of that time. During that time the RBRA was a campaigning organisation against excessive abstraction which had

resulted in the upper Beane running dry most summers. Dave is pictured above flanked by Ian Knight and George Sandell, two other original members, at a reception on the river bank in Watton at Stone celebrating the fact that on the 1st April 2017 Affinity Water had reduced abstraction from the Whitehall pumping station by 90%. A direct result of the RBRA's dogged, relentless, and good natured campaign and Dave's superb leadership.

At the AGM Andrew Bott (treasurer) gave a heartfelt vote of thanks to Dave for his outstanding work and all present agreed unanimously. Several other people added their own thanks to Dave including Ken Crofton, District and County Councillor.

A new direction for the RBRA

Unsurprisingly, no one has stepped forward to fill Dave's not inconsiderable shoes. But also the RBRA has been in a period of transition for the past few years moving from being principally a campaigning organization to one more concerned with practical conservation and the enhancement of the river ecology and environment. This work is now being overseen by a committee organized by our secretary, Dave Standing. Clearly, a lot of our activity is on hold due to the pandemic, but as soon as we are able to we hope to organize a wider range of working parties in close association with the Herts and Middlesex Wildlife Trust who are supporting us and attending our committee meetings when they can.

The committee consists of: Dave Standing (secretary), Andrew Bott (treasurer), Howard Berry, Malcolm Hadley, Marcella Randall, Steve Shaw, Neil Youngman (social media), Phil Hewett (WBH editor). In addition to the committee Bob Thornton has responsibility for river fly monitoring and the control of Giant Hogweed and Dave Ashby has responsibility for the RBRA's ongoing monitoring of bore holes. The RBRA has representation on the advisory groups for Affinity Water's remodeling of the river at the Walkern Road bridge in Watton and the Environment Agency's work to stabilize the breach at Waterford Weir (Horseshoe Falls). We are also a member of the Chalk Aquifer Alliance which will now lead on campaigning for all of England's precious chalk stream rivers.

The photo to the right was taken by Steve Block on Monday 11th Jan 2021 at about 11pm on the Lamas in Watton at Stone. It was reported to Affinity Water and the EA, but as yet (15th Jan) no explanation has been forthcoming. The river colour was back to normal by 12th Jan am.

January's river fly samples will be looked at with interest.

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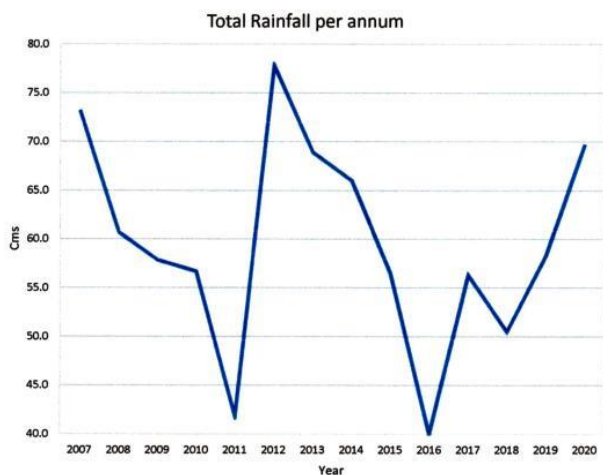
Dave Stimpson retires
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Aston rainfall, aquifer recharge and river flow



The picture above is of the river under the Walkern Road Bridge. You can see there is a barrier here to fish and other creatures moving up and down the river. Affinity Water plan to remodel this section to remove the problem.



Why has it taken so long for the river to recover after abstraction was reduced at Whitehall?



Steve Shaw provides us with more information about how rainfall and the water table affect flow in the river. The chart to the left shows his annual readings of rainfall in Aston.

The chart shows that rainfall has been quite changeable over the years (My meteorology year runs from Feb to Jan.) The lowest was 2016 at 40cms, whilst the wettest was 2012 with 77.8cms, almost twice as much. There is an emerging pattern of peaks and troughs with an interval of around 4 years. The year Feb 20 to Jan 21 has been particularly unpredictable. April, May and June had 25% less

rain than average, with May having none. August to January had 30% more with the possibility of a little more to come before the end of the month. So far rainfall is up by 17% overall so we can say that it will definitely be a wet year overall, probably the third wettest. This is confirmed by the ford at Whitehall experiencing serious flooding 3 times since Christmas Eve as a result of runoff from torrential rain.

The loss of flow in the Upper Beane has been evident for many years. Boreholes were installed in 1996 to monitor the level of the water table at 9 points from Halls Green to Watton at Stone in an attempt to identify the cause. Monthly readings (recorded by RBRA volunteers) show conclusively that the water table has been falling as the river flow has reduced and eventually stopped. Rain has two options, it either runs off the surface directly into the river or it seeps through the soil and substrate and enters the aquifer. Clearly the second option takes a good deal longer. Despite much analysis it has not been possible to establish a relationship between the timing of the changes in the water table and the diminishing/disappearing flow. However it is clear that the levels at Aston Ford and Whitehall have fallen further than those upstream and downstream causing a significant 'cone of depletion'. In 2017 Affinity reduced abstraction by 90% which has led to some recovery in these readings and inconsistent reappearance of parts of the river

Affinity Water, the Environment Agency and a retired geologist member of RBRA have each undertaken research and analysis and shared results. The findings indicate 2 beds of chalk separated by a thin layer of clay, which may interfere with flow into the aquifer. There is a buried glacial valley cutting across the natural line of the Beane and also possible problems with leakage from the bore holes interfering with seepage into chalk beds. Debris and vegetation now cluttering the river bed cause a restriction to flow. No definite cause has been established for the slow recovery of supply to the river. Nevertheless there is evidence of a general increase in the water table since abstraction was reduced, accompanied by occasional observations of flow after heavy rain. Initially the water is cloudy indicating surface run-off. However as the flow reduces it becomes much clearer indicating 'genuine' ground water.

Given that abstraction was reduced in 2017 which was just after the low point in rainfall it can be anticipated that it will take some time for the water table to recover to the point where consistent flow along the length of the Beane will be restored. There is optimism that if the upswing in rainfall is maintained it will happen quite soon.

Editor's note: Fingers crossed, it may have already happened!



The Breach at Waterford Weir

The Environment Agency (EA) carried out assessments at the site between October and December 2020, following substantial tree clearing works adjacent to the collapsed bank. They were already working with Herts County Council's Countryside and Rights of Way Service (CROW, previously CMS) on many of the weirs along the Beane, including another large one at Cedar Close in Hertford. At Waterford Marsh, this collaboration also takes into account the major footpath along the Beane which is part of the Hertfordshire Way.

Firstly the EA stated that any flood risk to properties from the breach was minimal. They then reported that the river around the site had improved in terms of its natural flow and was moving over cleaner gravels. Their view was that it would result in a better habitat for fish, insects and vegetation in the future, and was therefore more suited to chalk rivers. But they acknowledged the negative impact on the Marsh, with its lower water levels - and the loss of flow into the Molewood Mill Race. The EA will explore how they can support these habitats and 'whether there is a feasible option to return some flow to the mill race whilst ensuring that the River Beane receives the flows it need to thrive as a chalk river'. They (and HCC's CROW team) are currently setting up an advisory group to monitor the situation and to look at further improvements.

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