

# Chalk Stream Challenge

## River Beane at Waterford Marsh

The following sections of the challenge can be completed on this walk.

- 1 Walk the stream
- 2.1 Time the flow
- 2.2 Water clarity
- 2.5 River feature I-spy sheet
- 3.1 Plant spotter
- 3.2 Animal spotter
- 3.3 Who's in the river

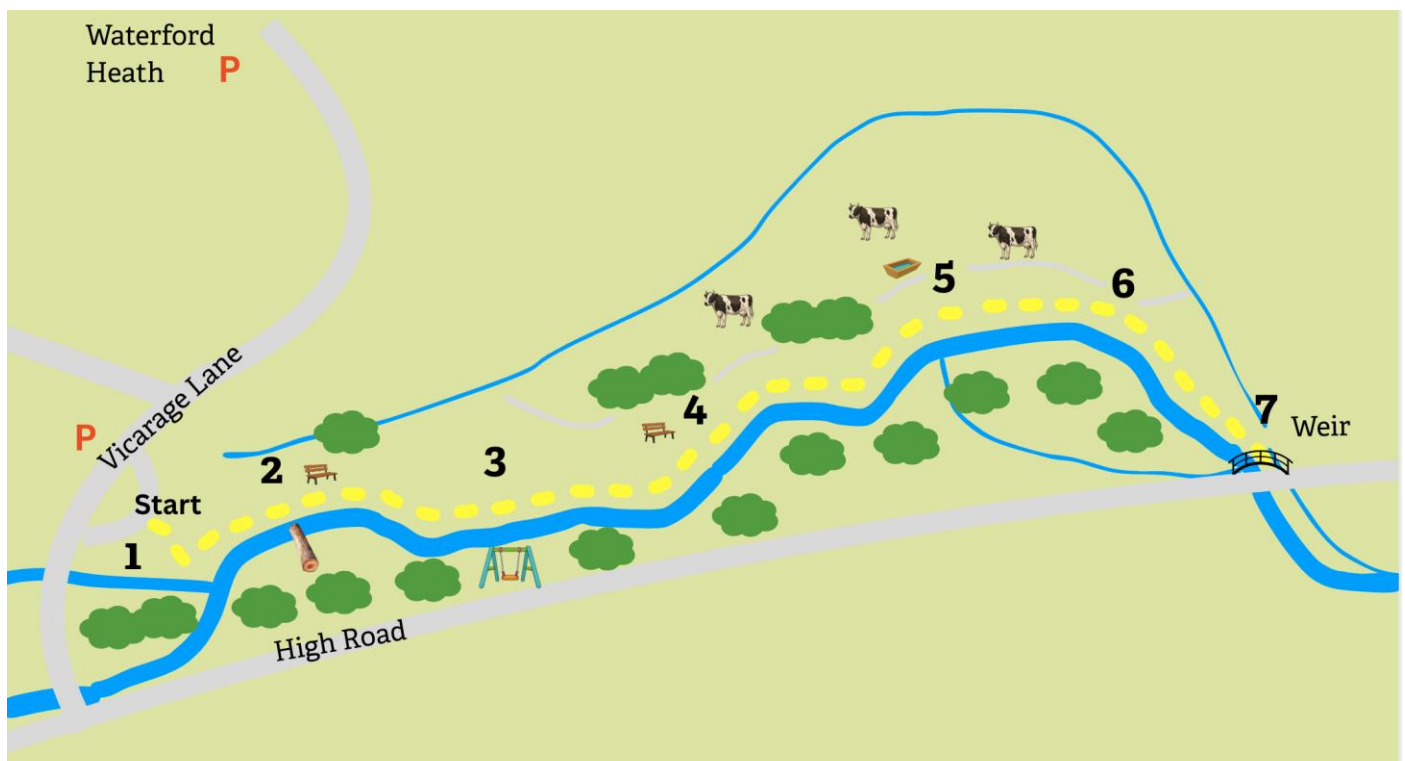


### Site information

This is an up and back route (approx. 2.2km), Once you reach Stop 7 you will need to retrace your steps and see the river from a different angle, this is a good chance to review the spotter sheets.

Begin the route at the small layby next to the main gate for Waterford Marsh (nearest postcode is SG14 2QA) There is a small amount of parking on nearby streets. Please park responsibly. If dropping off a group, further parking can be found up the hill at Waterford Heath (SG14 3LU). Bus Connect Herts 390 stops on Vicarage Lane a short walk away, this connects with Hertford North Rail station.

**Please note there are no public facilities on this route.**



## Route Guide

This site used to be common grazing land, it is now managed by Stapleford parish council for the river wildlife and people. Start by going through the gate on Vicarage Lane. Walk straight but veer to the right along the side of the river.

### Stop 1



Look at the river, how wide do you think it is? Stop and listen to the sounds of nature. Can you hear the river here? Can you see different sizes of gravel in the riverbed? How does the river make you feel?

*The noise is created by water moving faster over the raised area of gravel – this is called a riffle.*

#### Try activity 2.1- Time the flow

**Things to look out for here:** Kingfisher, overhanging branches, butterflies, raised sewage manhole, gravel bottom in the river, Mole hills.

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Keep walking with the river on your right. Stop opposite the fallen dead tree on the opposite bank. The river is shallow and easy to get into here.

### Stop 2



How wide do you think the river is here? What has changed? (Another stream has joined) Can you spot any fish here? (There are minnows)

*Dead wood is beneficial to rivers, notice how it traps sediment, allowing plants to grow. It also creates scouring of the riverbed as the water travels underneath the trunk. This creates areas of deeper and shallower water. This is good for Trout who like to lay their eggs on clean gravels. Small fish can also shelter around the branches.*

#### Try activities 2.2 Water Clarity and 3.3 Who's in the river

**Things to look out for here:** Reed beds, slow moving water  
Willow trees, butterflies, woody debris, gravel riverbed, Grey Wagtail.

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Continue past the bench and around the corner, notice the trees on the left. Stop opposite the playground on the other side of the river.

### Stop 3



This is one spot where dogs enter the water here – what issues could that cause? Do you think Dogs should be allowed in the River? (Stirring up sediment in the river, flea treatments entering the water – which can affect creatures living in the water, disturb birds and destroy nests, erode banks.)

*Water voles were re-introduced on the River Beane a few years ago, they have been found here at Waterford, they like the bankside vegetation on the far bank. Why do you think they need vegetation? (To eat, to feel safe from predators)*

#### Try activity 3.2 Animal spotter

**Things to look out for here:** Water Crowfoot(aquatic plants), Poplar trees, Damselflies, bank erosion, reed bed, Iris, Wagtail.

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Continue to the bench on the left under the trees, the river is narrower here, and deeper. \*Don't walk on the reedbeds, they are very wet.

### Stop 4



Notice the fence to your left. Cattle are often grazing in the field. Why do you think the fence was put up? Can you spot something in the river purposely put there

*Conservation activity here has been to reduce the width of the river and encourage plants to grow along the near margin. Stakes have been put in to hold branches to trap sediment.*

#### Try activity 3.1 Plant spotter and 2.5 I-spy river spotter

**Things to look out for here:** Water mint, Willow herb, Himalayan balsam Meadow Sweet, Mallards, Mayfly, river restoration.

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Walk on until you see something strange by the cattle fence on the left.

### Stop 5



Can you see how the cattle get water now? (cattle operated drinking troughs – follow the blue pipe from the river!)

Look at the plants in the river – how does it alter the flow of water? Which way is the water flowing?

*Water Crowfoot is an indicator of a good chalk stream habitat. Minibeasts like to live in it, it helps create different flow conditions and it provides shelter for fish.*

**Things to look out for here:** Damselflies, cattle operated drinking troughs, Water Crowfoot, Water mint, Himalayan Balsam.

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Walk on, stop where the river turns a corner, there are Poplar trees behind you

## **Stop 6**



The river seems to wiggle here, can you see the meander? The river will start eroding on the outside of the bend. There is deposition on the inside bend and plants are growing here.

*Look out for Himalayan balsam on the opposite bank, it is a non-native invasive plant that spreads fast. It smothers our native plants, creating a bare bank face in winter.*

**Try activity – 3.1 Plant spotter**

**Why not play pooh sticks, find something natural that floats, a leaf/stick etc and race it along the straight path. Who is faster you or the river.**

**Things to look out for here:** Willow Trees, Poplar trees, river meander, stinging nettles, Himalayan balsam, Water Crowfoot Bull rush, Iris, Mandarin Ducks.

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Walk on but be careful there is a ditch on the left and the path is narrow. The water is deep here in the river and cloudy. The sluice gate used to send water to a mill, after the bank collapsed in .... the river has bypassed this structure now only flowing over the small weir and under the bridge.

## **Stop 7**



How is the river different here? What man-made structures can you see? (Sluice gate in the picture) Walk a bit further and there is also a weir. How is the water different here?

*Rivers are changed by people in many ways, they are moved out of the way, straightened, covered over and restricted. Luckily we are now trying to reverse this where we can. The river at Waterford has had retaining walls removed between stops 6-7 and the structure here at spot 7 will not be repaired.*

**Try activity 2.5 River I-Spy Sheet**

**Things to look out for here:** Sluice gate, weir, bridge, stinging nettles, ditch, fast moving water.

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Walking back along the route keep your spotter sheets handy, how many different animals, plants and features can you collect? How did the river change as you walked along it? **Look up, Red Kites can often be seen overhead.** Thank you for visiting the River Beane