

5 Witherley's Mill / Ha'penny Bridge

Just before you reach the bridge, you can just about see the remains of the mill under the ferns and greenery between the path and the river. There was a flour mill here before 1498. It was converted to a snuff mill some time after that date. In 1792, the Wills Tobacco family took over the mill and carried on producing snuff. It was again converted in 1843, this time to manufacture wool until 1877 when the mill shut for the last time.

Cross over Ha'penny Bridge and turn left to follow the river upstream.

6 King's Mill

This mill was also built before 1498 as a flour mill. From 1771. It was converted to a snuff mill and used until around 1842.

The weir here is the highest on this stretch of the Frome at around 2.5m. It has the biggest potential for generating electricity. The peak output would be around 30kW with an annual output of around 100,000kWh or enough to power 25 homes or meet 90% of the electricity needs of Begbrook Primary School.

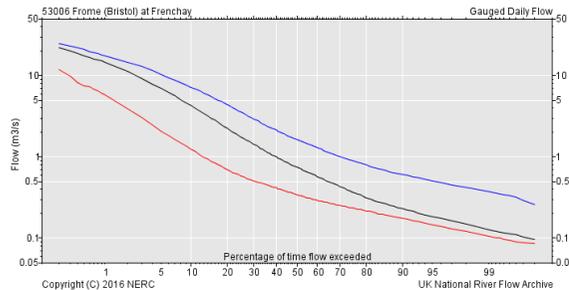
As you walk up the river, you'll come to a path up the hill on the right, next to a stream. This path takes you up to the play area and car park of Oldbury Court Estate.

7 Frenchay Measuring Station

Frenchay Mill was located here and closed in 1905. In 1958, the then River Board, cleared the area to make the measuring station that you can see today. It opened in 1961 and monitors the flow for both high and low values so that potential flooding downstream can be predicted and how much water is available for use by industry and water companies.

The concrete slopes give a defined cross section. They need to run for an extended distance so the water settles in to a consistent flow. The depth of the water can then be used to determine the flow. This is done electronically by the equipment on the Frenchay bank. There used to be a visual scale but this has now been obscured.

The graph on the right shows the speed of the water flow and the percentage of time that this flow happened for. This information, along with the height of a weir, can be used to estimate the amount of electricity that can be generated.



Key: Black line - annual; blue line - December to March; red line - June to September.

Underlying data supplied by the Environment Agency



^ Example of an Archimedes screw hydro-electricity generator installed next to a weir

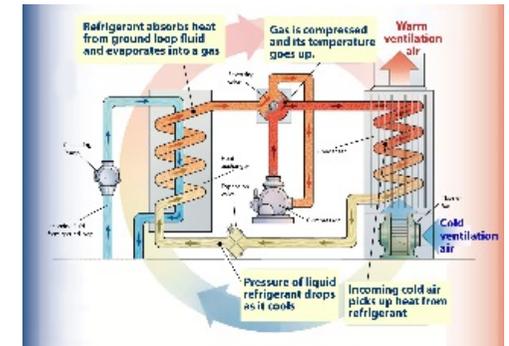
River Frome "Power" Walk

As well as giving life, water can be used to provide heat and power. Follow this walk to find out how the River Frome has been used to provide power in the past and how it could provide us with energy in the future.

1 Eastville Park Lake

The park was created in 1889 by the Bristol Corporation with the lake being dug out by 300 men during 1908-09.

Lakes can be used to heat buildings. There's heat available in the water all year round and it can be extracted by a heat pump. The heat can then be used in underfloor heating, radiators or to warm air. The picture on the right shows how this process works.



2 Colston Weir

Lathbury Mill once stood here. It existed in 1620 until the 1840s. After that, the area to the west of the weir, bounded by a stone wall, was used as a swimming bath. As you can see, the area has now returned to woodland.

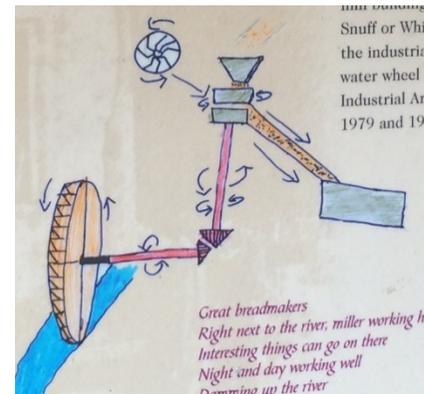
Walking from Colston weir, cross the bridge and follow the path to the right. You'll come out onto a country lane. Turn right and cross over Wickham Bridge. Just after the bridge, turn off the lane on to a gravel path on the left. At the end of this path, you'll come out on to a main road. Carefully cross the road and turn left.

3 Curtis Mill

Known as Wyatt's mill before 1620, this flour mill was then let to William Curtis by the Berkeley family who owned the mill. The weir here is known as Broomill weir.

Cross the bridge then take the next right, follow the lane then go straight through the car park.

4 Whitwood Mill aka Snuff Mills



Originally, this was a flour mill and never produced snuff. The iron water wheel and its narrow leat can still be seen and is probably typical of the mills along this stretch of the Frome. The weirs were high but not high-enough to server overshot wheels, which are seen elsewhere, so those along the Frome were undershot wheels. In 1899, the wheel was said to have 12-horsepower which powered three stones. A double egg-ended boiler was installed around 1850 and powered a steam engine which, along with the water wheel, power stone cutting tools.

< Photo of one of the info boards at Snuff Mills showing how an undershot wheel turns water power into mechanical power to grind grain.



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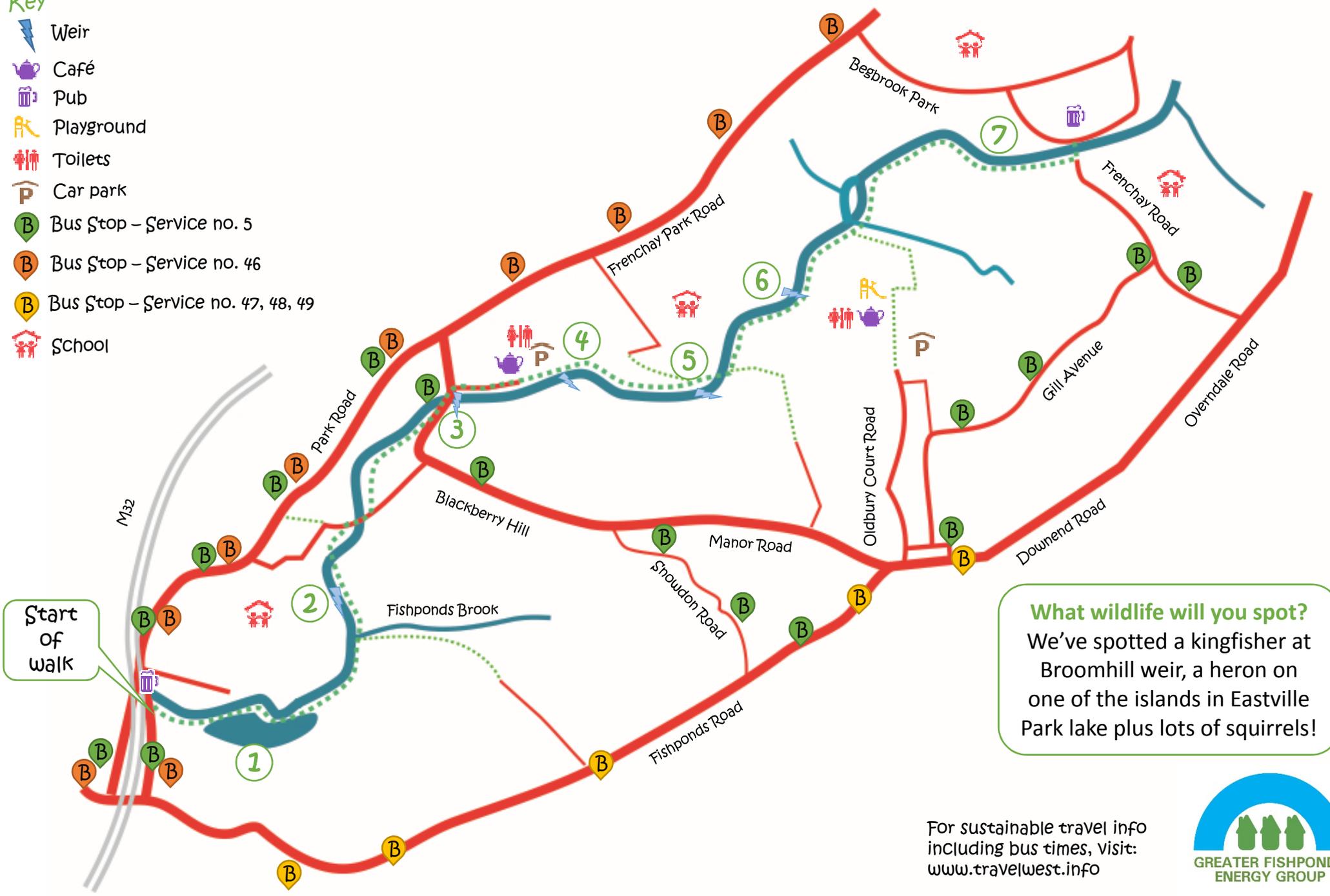
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Key

-  Weir
-  Café
-  Pub
-  Playground
-  Toilets
-  Car park
-  Bus Stop – Service no. 5
-  Bus Stop – Service no. 46
-  Bus Stop – Service no. 47, 48, 49
-  School



What wildlife will you spot?
 We've spotted a kingfisher at Broomhill weir, a heron on one of the islands in Eastville Park lake plus lots of squirrels!

For sustainable travel info including bus times, visit: www.travelwest.info

