



## River Chess Water Vole Project Update 2021

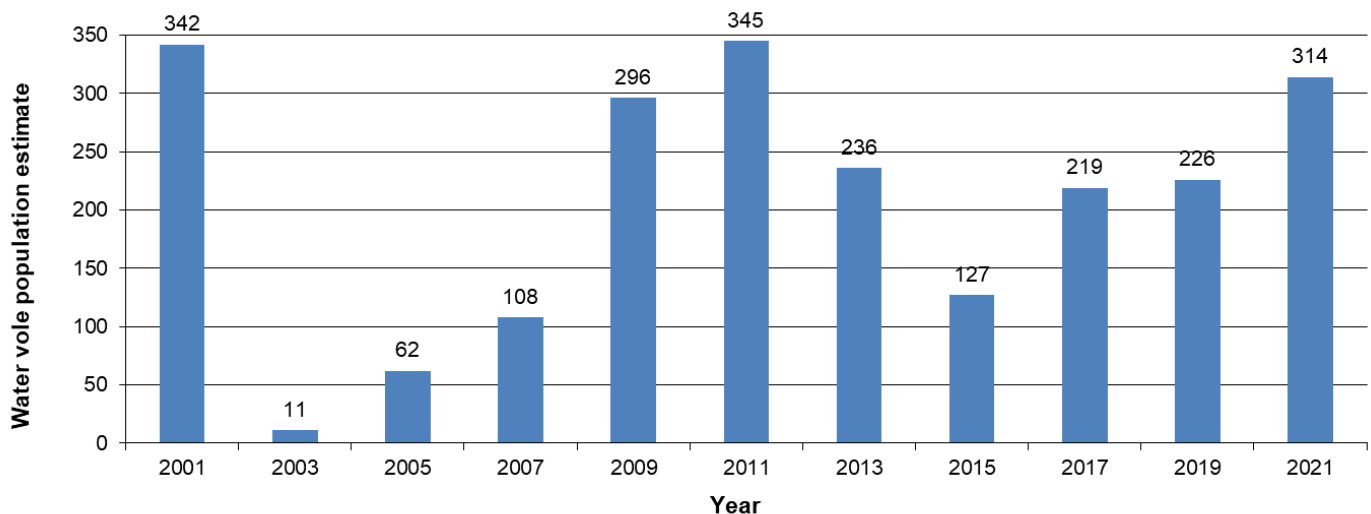
Long-term status:	<i>Stable</i>
Short-term status:	<i>Increase</i>
Mink control level:	<i>Medium</i>

### Introduction

Full water vole surveys of the River Chess have been conducted at 2-yearly intervals since 2001, with the number of water voles estimated from latrine counts. Between 2001 and 2003 a dramatic 97% decline in water voles was seen, this was attributed to mink dispersing along the watercourse and a mink control and habitat enhancement scheme was initiated. Surveys conducted between 2005 and 2009 showed the recovery of the water vole population and by 2011 the population had fully recovered to 2001 levels with an estimated 345 water voles. Subsequent surveys were co-ordinated by the River Chess Association (RCA) and carried out by trained volunteers and the Chilterns Chalk Streams Project (CCSP) Officer. Results showed a decline in water vole activity in 2013 and 2015, with the population falling to an estimated 127 individuals. This may in part be due to a natural fluctuation in water vole numbers but is also likely to be the effect of external factors such as mink predation or changes in habitat. In 2019, 24 out of 39 surveys were positive, representing an increase in water vole activity (Map1).

### 2021 Water Vole Survey Results

In 2021 38 surveys were carried out by the RCA, the CCSP Officer and BBOWT on the River Chess and its tributaries between Chesham and Chorleywood. Water vole activity was recorded on 29 sections and the population had extended their range 1.5km downstream through Chorleywood from the previous survey in 2019 (Map 2).



The number of water voles present was once again calculated from a detailed latrine count and results showed that the population had increased significantly from 2019. Water vole numbers are estimated at 314 individuals, 92% of the 2001 population. There was a decline in latrines on the upper survey area (upstream of Latimer) but an increase on the lower stretches (Latimer to Chorleywood), with the core population apparently having migrated downstream from the previous survey.

### **Mink Control**

A mink control scheme was initiated in 2004 after mink were recorded on the river. During an audit of the mink rafts in 2015, it became apparent that monitoring and control efforts had dropped off and of the seventeen rafts installed on the river, only three were still functioning and being regularly monitored. In December 2015 mink prints were detected at Latimer and one adult mink was subsequently trapped. Efforts were made to extend the mink raft scheme and several Riverfly Monitors were recruited to help monitor new rafts. Despite regular monitoring, no more mink were trapped on the river until this year. Ten mink rafts were in use on the river between July 2020- June 2021 and during this period two mink were trapped at Latimer (Map 2).

### **Habitat**

Since February 2018 the Chilterns Chalk Streams Project, the River Chess Association and the Chiltern Rangers have been working with local landowners and volunteers to improve habitat for water voles at Latimer where poor quality habitat was preventing the water vole population from re-colonising the headwaters of the river. Clearings have been created in the wooded section of river and habitat features such as deflectors and berms have been installed to promote the development of marginal habitat. 2019 surveys recorded water voles through the newly enhanced habitat, as well as further upstream towards Chesham for the first time since 2013. The 2021 survey showed that water voles continue to survive at Latimer but had declined on the upper river at Chesham. The planned restoration of the River Chess at Moor Recreation Ground, Chesham, will include the removal of 200m of concrete revetment and the reinstatement of more natural channel profile and morphology, increasing habitat available to water voles on the upper river. Thames Water are looking to improve habitat by the Sewage Treatment Works as part of the Smarter Water Catchment initiative which could also aid the expansion of the water vole population further upstream.

### **Recommendations**

The increase in water vole numbers and the expansion of their range downstream this year was very good news. It demonstrates a continuation of the general upward trend in water vole numbers seen at the last survey in 2019. The fact that mink are back on the river is cause for concern, although it is very positive news that they were apparently quickly detected and trapped. It is crucial that mink rafts continue to be regularly monitored in order to prevent a repeat of the massive decline in water voles that occurred in 2003. Further efforts should still be made to increase the mink control scheme, with the aim of installing mink rafts at roughly 1km intervals throughout the survey area. Particular effort should be made to reinstate mink control along the river downstream of Sarratt Bottom in order to detect mink travelling upstream from the River Colne. The Water Vole Recovery Project should continue to work with the RCA and the CCSP on monitoring water voles, mink control and habitat enhancements.

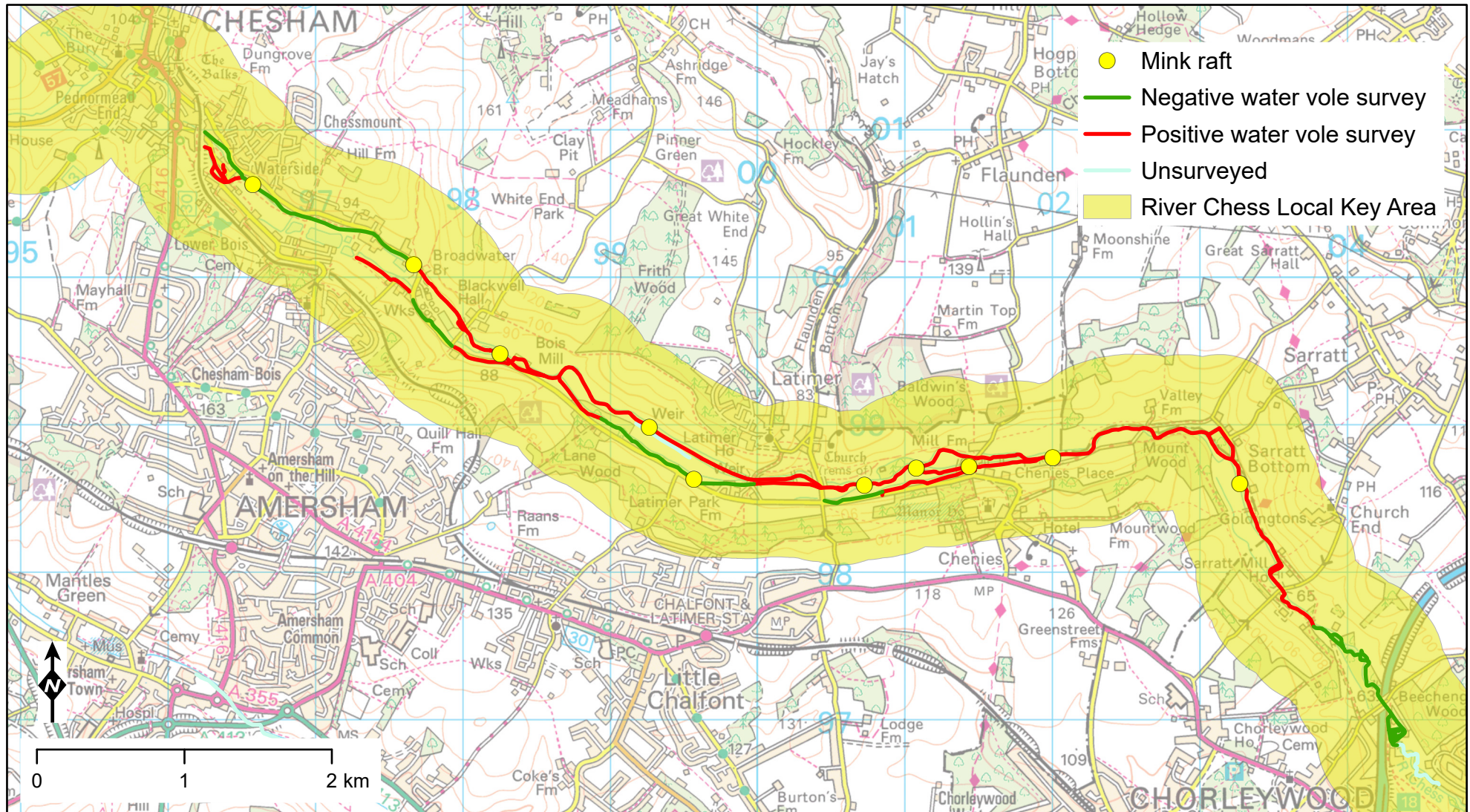
The upper River Chess should be surveyed again in 2023 in order to monitor the progress of the water vole population. Ad-hoc records of water voles have been reported on the lower River Chess in recent years and a water vole was identified at Scotsbridge near Rickmansworth early 2021. Surveys should be extended through Hertfordshire in conjunction with the RCA and Herts & Middlesex Wildlife Trust in order to establish the full extent of the water vole population on the river.

### **Acknowledgements**

Thanks to the River Chess Association, the Chilterns Chalk Streams Project, to landowners who allowed access to their land for the 2021 surveys and to those involved in the mink control scheme.



Map 1. Results of the 2019 water vole surveys and mink control on the River Chess





Map 2. Results of the 2021 water vole surveys and mink control on the River Chess

