



**the BIG  
Biodiversity  
Challenge**  
*do one thing*

**(Curry Moor Flood Storage Area)  
(Curry Moor nr Taunton, Somerset)  
(Environment Agency, Atkins, Conservation K9 Consultancy)**

## BIG Biodiversity Challenge Award Category: *Innovation*

### Project overview

Atkins and Conservation K9 Consultancy (CK9C) have undertaken innovative water vole detection dog surveys on the Curry Moor Flood Storage Area (FSA) scheme in order to provide a robust survey effort ahead of FSA required safety works that could affect water vole and their burrows, if present.

### What were the biodiversity conditions on site, prior to the enhancement?

Desk study results indicated that water voles are historically present in the area, and field surveys in 2022 confirmed water vole presence on the wider ditch network surrounding the Site. Traditional survey methods were unable to find evidence of water vole on the River Tone and were limited by steep banks preventing access to water level, as well as the fact that the site sits within Curry and Hay Moor Site of Special Scientific Interest (SSSI) and would have required an assent in order to carry out traditional survey techniques which could result in disturbance of sensitive habitats and species.

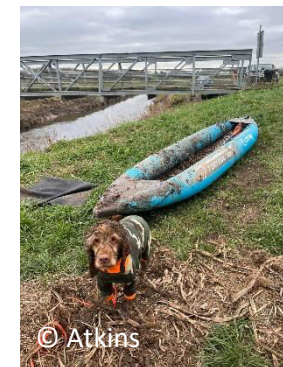
### What were the reasons behind this project ?

The primary reason for this project was to provide a robust survey effort ahead of FSA required safety works, ensuring that water vole populations that may have been present were fully considered ahead of works that could result in destruction of burrows (if present). The implementation of this innovative survey technique not only removed the risk of disturbing sensitive habitats and species within a SSSI, but also the health and safety challenge of working near steep riverbanks and deep, fast-flowing rivers. The survey resulted in water vole evidence being recorded where it had previously not been found on site.



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*This section of the River Tone featured steep mud banks that could not be accessed on foot, and had high levels of mink activity, which made finding water vole evidence a challenge.*



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*Water vole detection dog, Hettie, after a successful survey*

## What were the biodiversity measures taken?

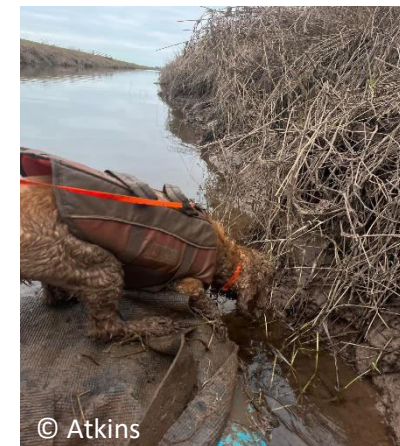
One of the FSA required safety works would involve the banks of the River Tone undergoing strengthening works due to de-stabilisation caused by a large badger sett, which would be closed (with an artificial sett provided), therefore a robust survey effort was required to ensure water voles wouldn't be injured/killed or have their burrows destroyed by the works.

Water voles are a protected and priority species. They are the fastest declining mammal species in the UK, with current population loss estimated at 95%. Their populations at this site are threatened by the presence of mink, therefore protection of water voles at this site as part of the wider meta population, is crucial for their recovery.

CK9C were contacted to conduct water vole detection dog surveys on the River Tone and several other ditches as an alternative survey approach to ensure a robust survey effort was undertaken and minimise disturbance to sensitive habitats and species within the Curry and Hay Moor SSSI. The innovative survey method used involved CK9C entering the watercourse on an inflatable kayak, with water vole detection dog, Hettie, sat on the nose of the kayak. An Atkins water vole survey lead was positioned on the bank to verify any evidence found (such as feeding remains or droppings) and record the data. The CK9C team methodically worked its way along the bank, searching for evidence and working with the Atkins surveyor to locate features of interest, such as potential burrows or latrines/droppings on the banks. Hettie indicates once she has detected the water vole scent and is rewarded upon verification of the evidence by her handler. The survey technique employed is replicable as demonstrated by Atkins and CK9C's ongoing work together on a number of projects where otter and water vole detection dog surveys have been undertaken.



*CK9C's water vole detection team can access the toe of the bank with ease and have a good view of any burrows in the banks*



*Hettie working the toe of the bank searching for evidence, she indicates to her handler when water vole evidence is found and gets a reward if water vole evidence has correctly been identified*

### Further information

The successful recording of water vole presence (and also high levels of mink activity) within the ecological zone of influence (EZoI) means that water voles will be displaced under the Environment Agency's organisational licence, and will be moved into nearby suitable habitat, and has ensured that no water voles are injured/killed during the embankment works. Not only this, as part of Atkins's framework contract with the Environment Agency which includes other schemes in Somerset, ongoing management informed by this survey (including control of mink and habitat enhancements) will enable sustainable recovery of the water vole meta-population in the area.

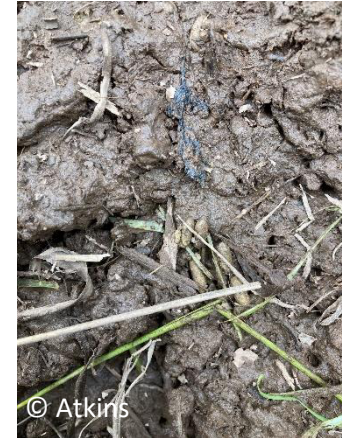
Atkins and K9 are both at the forefront of creating and testing new ways of using conservation detection dogs in the UK. Atkins designed and undertook the first ever scientific trials to train and use dogs to find bat carcasses associated with windfarm monitoring (in 2013) and great crested newts (in 2017/18). Since these initial scientific trials, Atkins and our approved suppliers CK9C and Paws for Conservation have worked together to expand the variety of protected species that conservation detection dogs can be utilised to find, now including water voles and otters.

### Project team

- Client – Environment Agency
- Consultant Ecologists – Atkins
- Sub-contracted water detection dog team – Conservation K9 Consultancy

### What was the motivation for carrying out the enhancement?

Atkins/CK9C carried out this innovative survey method in order to provide a robust and thorough survey effort that ensured that water voles, an endangered protected and priority species, were protected against injury or death (or destruction of their burrows) during the works and, where possible, could be encouraged to thrive on site. This survey technique also avoided disturbance to sensitive habitats and species within the Curry and Hay Moor SSSI. The success of the surveys has benefitted water voles via protection during the works as well as informing ongoing site management (including mink control and habitat management).



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*Water vole field signs found by Hettie on the toe of the bank, concealed by vegetation that would not otherwise have been found*



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*Atkins/CK9C survey team*