

Revitalising the River Misbourne

Why are we working on the River Misbourne?

The River Misbourne is a chalk stream. Chalk streams are globally rare habitats; England has 224 out of 260 global chalk streams. Affinity Water's supply area includes 10% of England's chalk streams.

Over centuries, rivers have been modified to meet various different needs and wants of people. Rivers have been relocated from the valley bottom to work better with field boundaries, relocated for housing development and straightened to form mill leats for industry.



River Restoration Project, River Misbourne:
Amersham to Quarrendon Mill

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Why are we working on the River Misbourne?

Centuries of changes mean that the chalk streams are less resilient to extreme climatic conditions such as flood and drought, as they no longer operate in a natural way.

Therefore, we want to re-naturalise chalk streams; creating suitable habitat for fish and macroinvertebrates, while also ensuring the rare habitat is resilient to our changing climate.



River Restoration Project, River Misbourne:
Amersham to Quarrendon Mill

River Restoration at Barn Meadow

What are we doing and **why**?

Introducing natural in-channel features

- Earth and woody 'berms' (wet ledges) will create small meanders, improving flow velocity, especially in low flow conditions.
- Gravel riffles will be added for diversity of flow and to improve habitat for fish and invertebrates, who use the gravels for spawning and feeding.

Re-grading the riverbed

- The gradient (steepness) of rivers drives important processes such as erosion, sediment movement and flow speed.
- Hand digging near Mill Lane will restore the shallow gradient which results in slow flows and sediment deposition.

Access point creation

- Creating a shallow beach will provide a safe access point as well as reducing bank erosion.



River Restoration at Pondwicks Meadow

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Backwater creation

- A backwater is 'a part of a river that is not reached by the flow, creating a calmer habitat'.
- The backwater will be seasonally wet and dry, depending on the levels in the River Misbourne.



How are we protecting the environment during works?

Pre-work surveying

- Trained ecologists surveyed both Barn Meadow and Pondwicks Meadow for protected species such as: water vole, otter, reptiles and great crested newt.
- Trees were assessed for bat roosting potential before deciding which trees were suitable for trimming (pollarding).

Ground protection

- Where suitable, specialist track matting will be used to reduce ground disruption as much as possible.

Working with the Environment Agency

- Throughout the project stages, we have worked in close contact with the EA to gain their expertise, preferences and approval for the works.

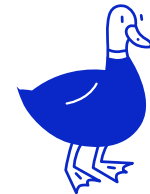
For more information, feel free to email us:
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Frequently Asked Questions



Or visit:

<https://www.affinitywater.co.uk/corporate/environment/restoration/river-misbourne-restoration>



For more information on our ongoing and completed projects visit our River Restoration Website:

<https://www.affinitywater.co.uk/corporate/environment/restoration>