

Solihull Habitat and Nature Improvements

A programme of woodland, grassland, wetland and water quality improvements

Watercourse enhancements have focused on the River Cole and its tributaries the Kingshurst Brook, Hatchford Brook and Low Brook

Low Brook – large woody debris

What is large woody debris and what does it do?

Woody debris refers to branches, trunks, or entire trees that fall into the river channel. Fallen trees and branches are a natural part of tree-lined river habitats.

The benefits of woody debris

- Adds structural variation to straight channels
- Stabilises river banks and beds by resisting and deflecting flow
- Improves water quality by trapping and holding sediments and organic matter
- Provides migratory fish with feeding, spawning and nursery sites
- Gives protection from fast water flows
- Provides cover and perches for insects, birds, amphibians and mammals
- Supports invertebrate life cycles, such as the adult dragonfly emerging from the larval stage
- Creates habitats for plants and animals
- Increases floodwater storage
- Stores carbon, helping to mitigate the effects of climate change

Low Brook runs northwards from Elmdon, across Birmingham Airport, and joins Hatchford Brook to form Kingshurst Brook.

In 2018, this project introduced four pieces of large woody debris to the Low Brook alongside Alcott Wood.



The tree trunk is secured into the river bank at an angle



The woody debris in place at Low Brook

Some species of animals and plants found in and around the brook

Branched bur-reed (*Sparganium erectum*) is a wetland plant with bright green leaves, which are linear and flat. It grows to a height of 1.5 metres and spreads across the edges of rivers and ponds, providing habitat for a variety of animals. It has both male and female flowers. These are white balls which develop into prickly brown fruit. The fruits can float for several months and have a water-repelling surface.



The **kingfisher** (*Alcedo atthis*) is a brightly coloured bird, with unmistakable azure blue and metallic copper plumage. They fly fast and low over the water, hunting for fish from riverside perches. They breed near watercourses and lakes that have suitable banks for burrowing nests and shallow edges for feeding. They are vulnerable to hard winters and habitat degradation through pollution or poor management of watercourses.

Banded damselfly (*Calopteryx splendens*) is a large damselfly that lives along the edges of slow-flowing rivers, canals and still ponds. Its common name comes from the distinctive mark on the males' wings. The males are very territorial, performing fluttering display flights to win over females. They are on the wing from May to August.

