

The Beverley Brook - Overview of Proposed Techniques

Toeboard Removal:

There is currently little or no interaction between the riverine and terrestrial habitats. This is partly due to the presence of wooden toe boarding along the entirety of Brook through the Common, we aim to removal as much as this as possible. It constrains the river to a straight and uniform planform. Removal of the boarding would encourage natural adjustment of the channel and consequently will provide transitional habitat.

There are long sections that the toeboard could be safely removed without causing undesired bank instability. In areas where erosion could be problematic, the toeboarding will be left in-situ and interventions installed in front of it.

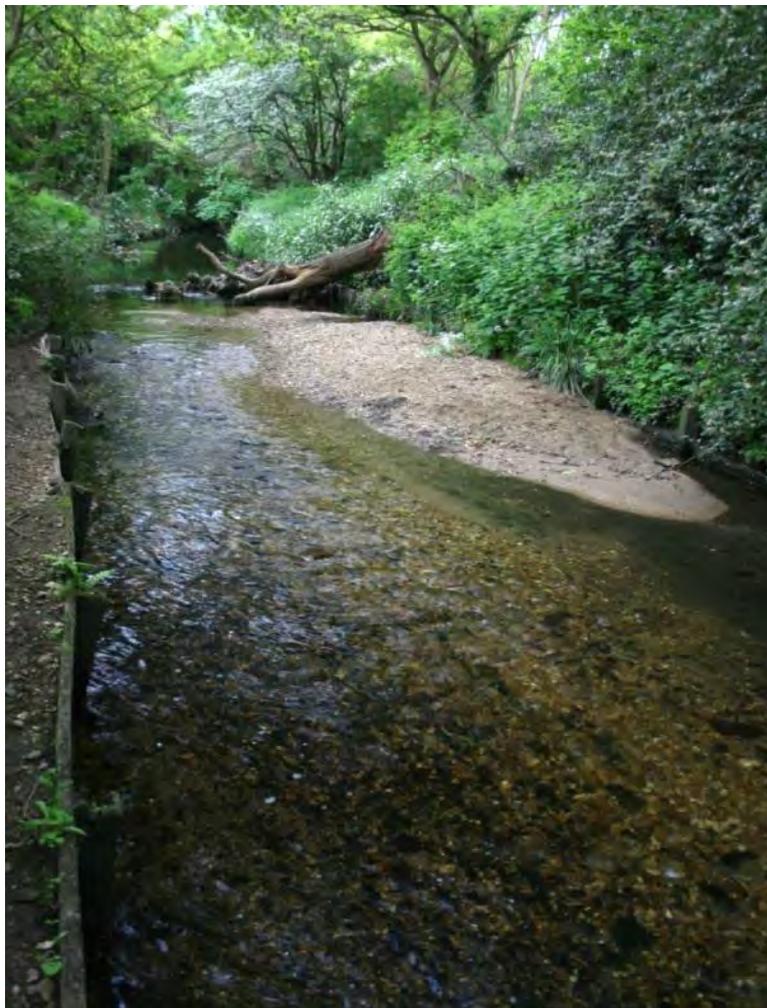


Toeboardng is located along most of the Wimbledon Common section of the Beverley Brook

Introduction of Large Wooded Material

Large Wooded Material (LWM) is fundamental and integral to a properly functioning river.

LWM serves a multitude of purposes. It provides habitat for all levels of the food chain. LWM creates flow and geomorphological variation which consequently scours pools which in turn sorts, cleans and replenishes gravel riffles. It creates in-channel features such as islands, bars and berms. It provides spawning, nursery and adult habitat for fish, therefore increasing the carrying capacity of the reach. The branches provide much needed cover and refuge.



In the photograph above LWM has provided the natural gravels eroded from the bank which has resulted in the formation of a berm which pinches the over-wide channel.

Tree Works

Significant lengths of the Beverley Brook through Wimbledon Common are heavily shaded due to extensive oak and some sycamore coverage. Opening-up sections through tree thinning and crown raising will allow more light to enter the watercourse.

A chartered ecologist has been commissioned to assess the potential negative impacts of this activity. Both the ecologist and Natural England concluded the trees along the Beverley Brook needed significant thinning and this wouldn't have a detrimental ecological effect on the site.

It has been agreed that felling a large number of the young, thin oaks in a manner which will not impact bat populations would be hugely beneficial to the overall ecology of the river and ground flora.



Channel narrowing and re-meandering

In suitable sections where there is adequate light for the successful establishment of vegetation, the excessively over-wide channel should be reduced to between 1.5-4m.

Narrowing the channel will increase flow velocities and reduce the blanket deposition of sand/silt. Doing so will additionally provide a variety of flow types and habitats which are available.

The narrowing would be achieved by creating low lying berms using either brush/tree tops or backfilled faggots (a description of each technique is below). Through this process a meandering sequence will be introduced by alternating the bank that the berms are installed.



*Brush berms being created to narrow the channel in Richmond Park
(October 2015)*

Planting

Once the brash has accumulated sediment the structures can be planted with a suitable mix of native aquatic species.

This will kick-start the establishment which will be complemented by the natural upstream seed bank.

This would be carried out through organised volunteer work parties.



Brash berms created in October 2015 photographed two years later with established vegetation

Bank Regrading

Due to the incised nature of the Brook in some areas we'd look to regrade the bank to a shallower angle but maintain existing bank levels.

Currently the whole brook through Wimbledon Common has very steep sides, which in turn, provides poor habitat for riparian flora.

This work would be isolated to certain sections on the right hand bank of the Brook as this side has a large amount of wet woodland.

The left hand side of the brook would be left as it is, this is to protect the playing fields and A3 that runs parallel.

