

# Deculverting – Position Statement

In the Don Catchment some rivers and streams have been culverted i.e. covered over with an artificial structure so that they are encased underground and disconnected from people and nature. This often occurred in the past in urban areas, where it was desirable to hide away grossly polluted watercourses, and when it provided additional space for development. For example, Sheffield Railway Station, which was completed in 1870, was built over the Rive Sheaf which was considered no great loss as at the time it functioned as an open sewer.

While the culverting of rivers sometimes made sense in the past, the water quality of our rivers has much improved in recent decades, and the needs and priorities of modern society now mean that deculverting (i.e. the removal of the culverts to open up a river) often brings benefits that far outweigh the cost.

The Don Catchment Rivers Trust (DCRT) is **strongly in favour of deculverting** wherever it is feasible and affordable as deculverting in the Don Catchment will...

## **...provide ecological benefits by:**

- Allowing daylight into the river ecosystem, which is essential for plants and algae to grow, which together represent one of the two foundations of aquatic food webs.
- Reestablishing the linkages between river and terrestrial ecosystems. For example, the emergence of aquatic insects such as mayflies are an important food source for birds and bats, and the flux of organic matter (e.g. dead leaves) into water is the other foundation of aquatic food webs, as it provides food for a myriad of invertebrates.
- Creating a corridor of green-blue space through which wildlife can move. This is highly beneficial for many species as it allows them to feed, find shelter, disperse, migrate and reproduce more effectively. It complements work done by DCRT and others to install fish passes on weirs to benefit fish such as salmon that need to migrate upstream through the river network to reach spawning habitat.

## **...provide social benefits by:**

- Improving landscape aesthetics and interest. This is often the case in urban locations where harsh hard-landscaping is abundant and greenspace limited.
- Improving recreation and opportunities to connect with nature. The creation of green-blue space can produce valuable opportunities for the creation of public spaces such as parks and walking and cycling routes. For example, the deculverting of a stretch of the Porter Brook in Sheffield enabled the creation of the Porter Brook Pocket Park at Matilda Street. Such wildlife-rich public spaces allow people to connect with nature. There is increasing evidence showing that exposure to nature provides physical and mental health benefits.
- Reducing flood risk. Flooding, and the fear of flooding, is a major source of stress and misery to those affected.

## **...provide economic benefits by:**

- Reducing flood risk. Flooding is hugely destructive and disruptive. The 2007 summer floods, which badly hit the Don Catchment, are estimated to have caused losses of £3.2 billion to the British economy.
- Reducing long-term maintenance costs. Many culverts are old, and must be maintained to prevent catastrophic collapse. While in the short-term deculverting is costly, in the long-term it can result in savings.
- Increasing the value of land. The social benefits afforded by deculverting listed above can result in neighbouring land becoming more desirable, resulting in increases the value of nearby land.

DCRT wants to see more deculverting projects in our catchment, and the promotion of deculverting by public bodies and our planning authorities. This view is shared aligns with the Chartered Institution of Water and Environmental Management which calls with the active promotion of deculverting. We support the efforts of organisations such as the Sheaf and Porter Rivers Trust that engage with developers and the planning process to highlight opportunities for deculverting and advocate for the benefits of deculverting.