

Overview

The Scarrow Beck Riverlands Project, led by the Norfolk Rivers Internal Drainage Board in partnership with the National Trust – East of England, was part of the broader Riverlands initiative, aimed at restoring river ecosystems across the UK. Situated on the upper River Bure in Norfolk, the project focused on enhancing the ecological health of this chalk stream. Funded by the Water Environment Grant, it tackled challenges such as channel incision, habitat degradation, and hydrological disconnection. The project's objectives were to improve biodiversity, restore natural river processes, and create sustainable wetland habitats that would support wildlife and improve water quality.

Design & Build

Norfolk Rivers IDB designed and delivered the restoration over a 1.9-kilometer stretch of the Scarrow Beck. Groundworks began with the excavation of over 12,000 tonnes of earth and the importation of 800 tonnes of local gravel and stone. These materials were used to create in-channel features such as runs, meanders, berms, and ephemeral ponds. The team also reconnected paleo channels and raised water levels to restore natural hydrological processes.

The project included the creation of bifurcated channels and scrapes, providing diverse wetland habitats. Large woody debris was strategically placed in the channel to enhance habitat complexity and encourage gravel scour, improving conditions for invertebrates and fish. Work near the confluence of the Bure focused on reshaping the riverbanks to achieve a more natural profile.

Throughout the project, careful attention was paid to hydromorphology, ensuring the restored river supported healthy ecosystems. The project team worked through all seasons, adapting to rainfall events that further shaped the new wetlands and validated the hydrological designs.



Above: Bank reprofiling

Right: Pond establishment

*Right: Newly deposited berms,
encouraging gravel scour*



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Project Benefits

The Scarrow Beck Riverlands Project successfully transformed a degraded chalk stream into a thriving ecosystem. By reconnecting floodplain features, raising water levels, and creating diverse habitats, the project delivered significant ecological improvements. New wetlands supported a rapid increase in biodiversity, with species such as Green Sandpipers, Greenshank, Snipe, and the rarely seen Brook Lamprey spotted in the area shortly after completion.

The addition of gravel and wood features enhanced habitats for invertebrates and fish, while the new scrapes, ponds, and bifurcated channels created opportunities for wetland wildlife to flourish. The restored habitats also improved water quality by naturally filtering sediment and pollutants.

By September 2021, the project was completed, leaving a legacy of healthier rivers and wetlands. The Scarrow Beck now provides a model for river restoration, demonstrating how chalk streams can be revitalised to benefit wildlife, the environment, and the local community. The project stands as a testament to the collaborative efforts of Norfolk Rivers IDB, the National Trust, and the support of the Defra Grant Funding, setting a benchmark for sustainable river management.



Left: Green Sandpiper



Above: Snipe



Left: Brook Lamprey



Above: Newly completed channel features



Above: Aerial view of Scarrow Beck site following the creation of new channel features



National
Trust

The National Trust: “One of the key features of successful river and water quality improvement work is partnership working. The Riverlands Project so far has been a wonderful illustration of this, with the team working alongside landowners, ecologists, Rivers Trust Norfolk, Environment Agency and Norfolk Rivers IDB. This holistic way of working means that high levels of expertise from a range of specialisms can contribute to creating high quality river corridors for wildlife.”