

Water Environment Improvements Project Evidence Form

Project Name

Starston Beck

Project Summary and Highlights

Summary

From 2024 to 2025, the Norfolk Rivers Drainage Board has improved 3.2 km of accessible water environments along Starston Beck.

The Starston Beck project has carried out an ambitious river restoration designed around fish passage and public access improvement. The project consisted of three separate sites, with different techniques used at each site. Site 1 (upstream site) carried out 350m of river restoration by reinstating the original natural path of the channel, bypassing a weir in the process. Site 2 (Glebe Meadow) carried out 150m of in-channel restoration, to improve the gradient and profile of the channel, creating a more natural and connected watercourse whilst drowning out two small weirs. Site 3 (downstream site) saw a large sluice being removed and replaced with a natural gravel bed, to enhance fish passage and benefit Flood Risk

Highlights

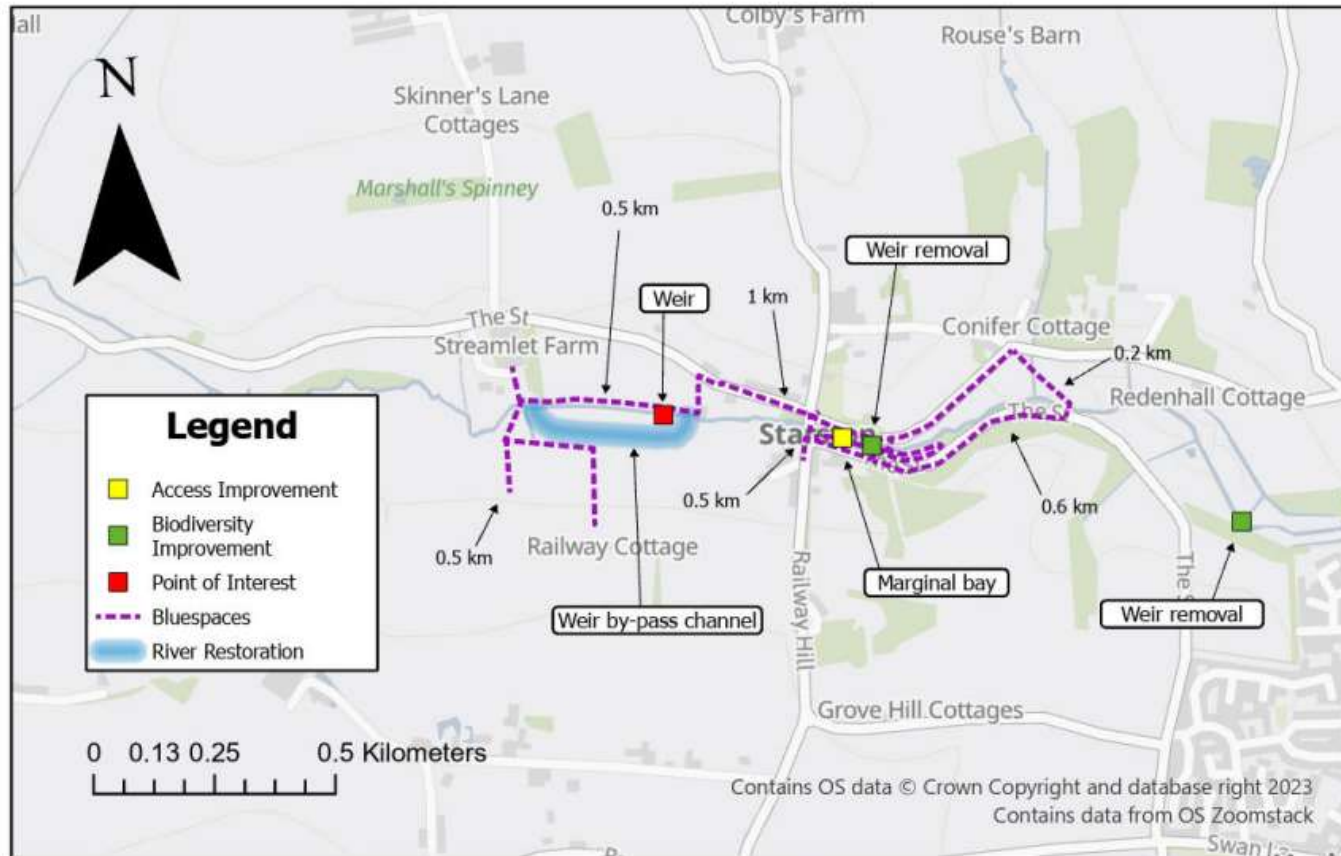
- Restored channel connection and reinstated historic channel meanders downstream, increasing channel length and naturalization of the river.
- The removal of barriers to fish passage; removal of the middle and downstream weir and creation of a by-pass channel at the top weir improving the quality and connectivity of the river and reducing the length of impounded water. The naturalization of flow will soon start to prompt more in-channel habitat establishment and consequently invertebrate diversity.
- The reprofiling of steep banks and creation of a gentle slope towards a marginal bay has allowed the community to directly access the River Waveney and has enhanced this area as a public amenity, increasing engagement and enjoyment with the watercourse.
- Erosion protection of the road along the left bank of the channel through spoil use, and regrading of the heavily modified banks has reduced erosion and made the river safer and more accessible for users of the Starston Glebe Meadow
- This project has been featured on ITV Anglian News, a link to the recording is available further down this evidence form.



Weir removal at Starston Beck

Maps




Starston Beck Fish Passage



Total Length of Accessible Water Environment: 3.2 km

Figure 1: Bluespaces improved at Starston Beck

Project Outputs, Benefits & Evidence Against Criteria

Access, Facilities & Recreation	
Expected Project Outcomes	Benefits
<ol style="list-style-type: none"> 1. Access to the water environment will be enhanced by the reprofiling of the current steep banks, and a gentle slope down to a marginal bay will increase direct access to the water's edge and enhance the area as a public amenity, while the shallower channel will provide a safer water environment. 2. Access will be further improved by erosion protection of the road towards the left of the channel. Through moving spoil and regrading the heavily modified banks, the river will be made safer and more accessible for users of the meadow area. 3. Closer connections for people to Bluespaces, as delivered through this project, are proven to offer wellbeing benefits. 	<ul style="list-style-type: none"> ➤ A1: Increases access to, engagement with and enjoyment of the water environment ➤ A2: Benefits health and wellbeing through:
Outputs	
<ol style="list-style-type: none"> 1. The reprofiling of the current steep banks and a gentle slope down to the marginal bay has enhanced direct access to the water edge and the area as a public amenity, while the shallower channel provides a safer water environment. 2. Bank protection on one side of the channel has helped protect the nearby road from erosion and made it safer and more accessible for users of the meadow area. 3. A new sign has helped visitors learn about the history of the project and the benefits for their water environment. There was also a feature on ITV Anglia News in September 2025 on the project and several press releases (links have been shared in the customer testimonies and media section of the form). 	
Evidence	
	
<p>Reprofiled bank</p>	<p>Gravel access ramp on the left and reprofiled bank protection on the right</p>
	
<p>Signage</p>	

Wildlife & Biodiversity

Expected Project Outcomes	Benefits
<ol style="list-style-type: none"> 1. The removal of the middle and downstream weirs and bypassing of the top weir will improve connectivity for fish migration passage upstream of the Beck to reach spawning habitat. 2. Fish passage and improved connectivity will increase the diversity of fish species in the Beck. Longer sections of natural flow in the Beck will create a diverse range of in-channel habitats that also support increased invertebrate diversity. 3. The creation of a reedbed will provide benefits for wildlife and biodiversity 	<ul style="list-style-type: none"> ➤ B1: Improves the quantity, quality and connectivity of habitats ➤ B2: Improves the conservation status and or abundance or distribution of species

Outputs

<ol style="list-style-type: none"> 1. The middle and downstream weirs have been removed and the top weir bypassed. This has improved connectivity for fish migration passage upstream of the Beck to reach spawning habitat. 2. Fish passage and improved connectivity will hopefully increase the diversity of fish species in the Beck. Longer sections of natural flow in the Beck have already started to create in-channel habitats that will support increased invertebrate diversity. 3. A reedbed has also been created and, as it starts to vegetate, will provide benefits for wildlife and biodiversity.
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Evidence



Photo of new channel and Weir removal at site 2 and 3



Marginal vegetation to establish further with in-channel habitat being created along berms



Embryonic reedbed and the old channel partially filled during a dry visit

Water Quality

Expected Project Outcomes	Benefits
<ol style="list-style-type: none"> 1. The reduction of impounded water across Starston Beck will allow the river's increased function to accommodate both high and low flows and the river will be less susceptible to low dissolved oxygen conditions. 2. Restoring natural processes will allow inundation of the floodplain meadow areas to help manage sediment and filter nutrients and pollutants before they enter the watercourse. 3. The creation of a reedbed will help filter run off from adjacent arable land alongside the river, preventing diffuse pollution. 	<ul style="list-style-type: none"> ➤ C1: Reduces pollutants entering waters from point or diffuse sources ➤ C3: Improves state and function of water, including naturalisation, visual appearance, litter and odour

Outputs

<ol style="list-style-type: none"> 1. A new channel was created along Starston Beck which has reduced impounded water and has allowed the river's increased function to accommodate both high and low flows and the river will be less susceptible to low dissolved oxygen conditions. 2. An embryonic reed-bed was created and will soon start to vegetate, helping to filter run-off from adjacent arable land alongside the river, preventing diffuse pollution. Restoring natural processes along with the creation of the reedbed has allowed inundation of the floodplain meadow areas to help manage sediment and filter nutrients and pollutants before they enter the watercourse.

Evidence



High and low flow channels



Photo of new channel



Photo of embryonic reed bed

Additional & Secondary Benefits

Expected Project Outcomes	Benefits
<ol style="list-style-type: none"> 1. Flood risk modelling has shown that this project will have a marginal positive benefit on flood risk during high frequency events and a negligible impact on more infrequent high flow events. The new channels (and the existing channel at Glebe Meadow) will be designed to be 2-stage so that during low flows the channel is constrained to make the best use of the limited flow whilst ensuring that the wider channel can accommodate higher flows. 2. The faster flowing channel will require less periodic de-silting than it currently requires, which will save on the use of carbon emitting machinery. 	<ul style="list-style-type: none"> ➤ D1: Provides resilience and adaptation to climate change and/or reduces the risk of flooding

Outputs

<ol style="list-style-type: none"> 1. The new channels (and the existing channel at Glebe Meadow) have been created and are designed to be 2-stage so that during low flows the channel is constrained to make the best use of the limited flow whilst ensuring that the wider channel can accommodate higher flows. Flood risk modelling showed that there would be a marginal positive benefit on flood risk during high frequency events, there is not yet enough data to demonstrate this yet so soon after project completion but future data are still expected to show this. 2. The faster flowing channel now has a cleaner gravel bed and requires less periodic de-silting than previously, which has saved on the use of carbon emitting machinery.
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Evidence



Creation of two stage channel



Cleaner gravel bed

Customer Testimonies & Media

“The IDB team has made joint working on the Starston River Habitat Enhancement Project a pleasure. They communicated well and have been receptive to our ideas. They have also shown great skill in converting complex design drawings into the practical reality of improving the river channel and meadows for both wildlife and the community. Their skill with large machinery performing the most delicate of channel work was very apparent. Nature is evolving, wildlife returning and people feel inspired.

To celebrate the completion of the project and the official re-opening of Glebe Meadow, the village held a well-attended party on the site, giving everyone the chance to enjoy the project’s achievements.”

Peter Grimble, Starston Jubilee Hall Trust (Glebe Meadow landowner)

[Starston Beck restoration on Norfolk-Suffolk border | Eastern Daily Press](#)

[Stream on Norfolk/Suffolk border returned to its historical route - BBC News](#)

[13 September 2025 – ITV Anglia News visit the Starston Beck River Enhancement Project](#)

Lead Partner Quotes & Testimonials

“The Environment Agency worked in partnership with the Waveney Lower Yare and Lothingland IDB on the Starston Beck Habitat Enhancement Project. The IDB have turned aspirations for the beck here into reality. The project has improved the ecology and natural functioning of almost 2km of the beck at Starston as well as providing opportunities for the public to better connect with the beck within the Glebe Meadow village site through sensitive bank reprofiling work.”

Naomi Boyle, Catchment Coordinator Environment Programme Team.