



## Belton Floodplain Reconnection – Witham / Slea Blue Green Corridor

**When:** 02/2023 – 03/2023

**Where:** Belton, Lincolnshire

|               |                       |
|---------------|-----------------------|
| Site:         | <b>Belton Park</b>    |
| Catchment:    | <b>Witham</b>         |
| River basin:  | <b>Anglian</b>        |
| Waterbody ID: | <b>GB105030056780</b> |
| Grid ref:     | <b>SK 92450 38545</b> |

### Pressures/drivers:

Main pressure: Choose an item.

*Tick other issues that the project also addressed:*

|   |                                     |
|---|-------------------------------------|
| Coasts & estuaries                        | <input type="checkbox"/>            |
| Fish passage improvements                 | <input type="checkbox"/>            |
| Flow                                      | <input type="checkbox"/>            |
| Groundwater                               | <input type="checkbox"/>            |
| INNS                                      | <input type="checkbox"/>            |
| NFM                                       | <input checked="" type="checkbox"/> |
| River restoration/habitat creation        | <input checked="" type="checkbox"/> |
| Rural diffuse pollution                   | <input checked="" type="checkbox"/> |
| Urban diffuse pollution                   | <input type="checkbox"/>            |
| Chalk                                     | <input type="checkbox"/>            |
| Peat restoration                          | <input type="checkbox"/>            |
| Carbon sequestration                      | <input checked="" type="checkbox"/> |
| Other ( <i>state below</i> ):             | <input type="checkbox"/>            |
| <a href="#">Click here to enter text.</a> |                                     |

### What & why:

This project builds upon two previously successful restoration projects in partnership between the EA and National Trust (landowner) that involved channel narrowing and adding gravel riffles. Its aims were to further increase floodplain connectivity and complexity, create wetlands and to restore natural river processes. To help the river come out of bank and onto its floodplain more frequently woody material jams were created using a combination of willow and alder along with discrete areas of floodplain lowering. The floodplain complexity was improved by adding fallen wood across it along with tree planting to ensure longer term wood supply for the river. Floodplain willows were hinged both into the

river and on the floodplain. Shallow scrapes were dug to create areas of standing water and imitation Beaver Dam were installed to encourage areas of deeper wetland. Frequently wetted, lowland floodplain is a very important but rare habitat type that delivers many ecosystem services benefits. Its restoration usually involves the movement of lots of spoil at high cost. This work is innovative in that it involves the use of lower cost, less intensive and more natural methods.

### Who:

South Kesteven District Council (lead partner) received a grant of **£743,831** from the European Union's, European Regional Development Fund (ERDF) to deliver 14 environmental projects along the River Slea and Witham. With additional match funding, including £140,000 for the EA, the total operating budget over three years for the entire project is **£1,236,615**. This project is one of those 14 in partnership with North Kesteven District Council, the National Trust, and the EA.

**Total project cost: £30,350 (Belton)**

### Outputs

- 1.6 hectares of floodplain wetted more frequently.
- 400 meters river channel improved through added woody material.
- 30 trees planted on floodplain
- 2 imitation beaver dams installed
- 1 large permanently wetted scrape created.

### Outcomes

- Benefits to Native Crayfish and Brown Trout
- Improved recreation for visitors and local fly-fishing club.
- Water storage and sediment capture
- Restoration on lowland floodplain
- Water storage and sediment capture

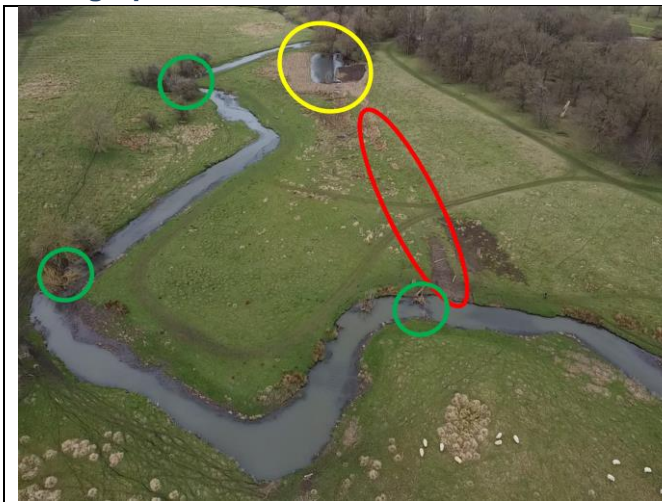
**Benefits:** (measurable improvement resulting from an outcome)

- Prevention of WFD deterioration
- More resilient fish and native crayfish populations
- Contribution towards achieving local and national biodiversity targets for wetland habitat creation
- Improved physical and mental health with creation of accessible green space near Grantham.
- Local exemplar sites for demonstrating low intervention floodplain reconnection techniques.
- Helps deliver larger scale, landscape scale floodplain and wetland reconnection strategy in the Upper Witham.

**Tips and lessons learnt:**

When planning a large-scale project of this nature, the first consideration should be what is the lowest cost and least disruptive way of achieving the objectives. Previous habitat works have focussed on lowering the floodplain to meet the water surface. This is often costly with excess spoil to move and spread and has a high initial impact on site both ecologically and aesthetically. It can also be very effective to work up projects in several phases over several years to allow interventions to be in and establish e.g channel narrowing followed by gravel introduction.

**Photographs:**



Site aerial view showing lowered bank and roughened floodplain (red), hinged trees (green), and scrape and mock beaver dam (yellow)

**Credit: Andrew Chick**



View looking upstream, along the floodplain with mock beaver dam and newly created scrape in the foreground.

**Credit: David Hutchinson (EA)**



Lowered floodplain off take point with hinged tree downstream to encourage flow over floodplain.

**Credit: David Hutchinson (EA)**



Newly roughened floodplain with pinned woody material, pond and planted trees in background.

**Credit: David Hutchinson (EA)**

**Links to further information:** [Witham and Slea Blue Green Corridor](#)