

Whitworths Mill Greening Project

Location: Whitworths Mill, Wellingborough

Upstream Grid Ref: SP 90115 66488

Downstream Grid Ref: SP 90157 66653

Length: 150m (252sqm.)

Completion date: April 2021

Cost: £113,526

Partners: National Lottery Heritage Fund, Environment Agency, Nene Valley Catchment Partnership, Nenescape LP, Whitworths Bros Ltd. & North Northamptonshire Council (Formerly Borough Council of Wellingborough)

Summary of activities

The Whitworths Mill greening scheme comprised of 1 activity:

Activity 1 – Installation of floating ecosystems to increase biodiversity in an urban stretch of river.



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Location map

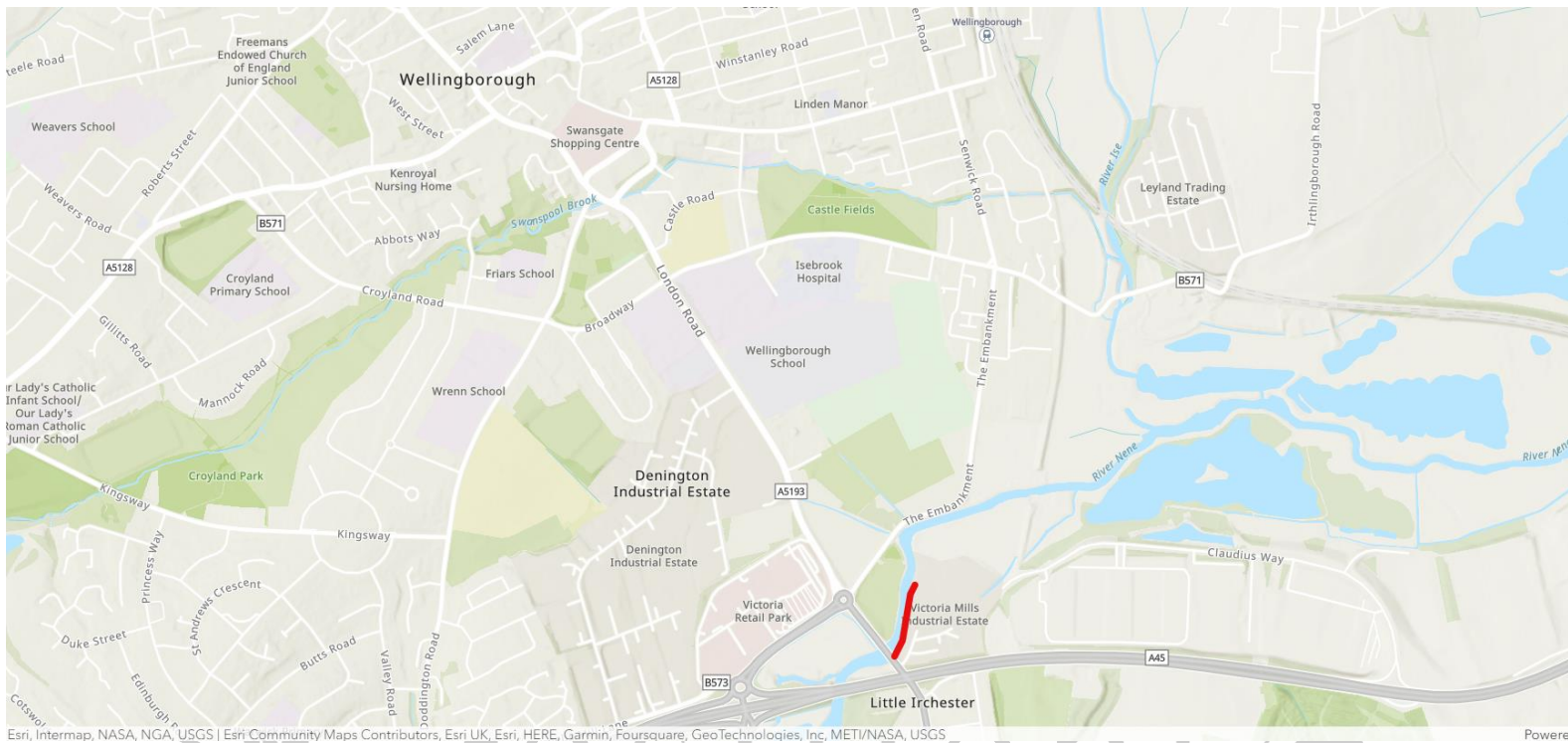


Figure 1 – Location of Whitworths Mill Greening, Wellingborough

Background to project

This project was part of the Resilient River project, part of the Nenescape Landscape Partnership.

The stretch of river running in between Whitworths Mill and the Wellingborough embankment is a very urban environment with sterile banks, with heavy footfall from the public, boaters and anglers. The stretch offers little in terms of cover or spawning habitat for fish as well as poor habitat for invertebrates. However there has historically been good fish stocks in the stretch, mainly due to the swans being fed multiple times a day creating a constant food source.

To improve the biodiversity the normal soft engineering options such as coir rolls were not suitable due to depth, the river bed being very solid and concrete in places as part of the hard standing build and also the potential for flooding and very high velocity flows. This left one innovative option, floating ecosystems which will rise and fall with the level and withstand high velocity flows.

The site is very popular in the warmer months with the general public, with an on site splash park and food stand. There are also moorings opposite the installation site which can get busy. This meant that

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the aesthetic side of the project was important, in order to create a much nicer and ‘greener’ view on to the industrial mill site.



Objectives

The project at Whitworths Mill benefits fish, invertebrates, aquatic birds and the local fauna, diversifying the river habitat through an urban stretch. The project contributes to delivery of Water Frame Directive, improving the ecological status of the river. It will also help the EA deliver the Eel Management Plan and meet its statutory obligations under the Eel Regulations.

- Increase and diversify marginal habitats in an urban environment.
- Provide shade over the water to improve cover for fish and reduce water temperature.
- Increase refuge and spawning habitats for fish.
- Improve the aesthetic of the urban environment, “greening” the hard and grey banks.

Activities

Installation of Floating Ecosystems

Approximately 150m of floating ecosystems was installed along the Whitworths Mill bank of the river, resulting in 252sq.m of habitat being created. The floating ecosystems comprise of metal frame filled with coir rolls, planted with native aquatic species such as Yellow Flag Iris, Purple Loosestrife, Water Mint as well as various reed and sedge species. There was a number of feature planters which contain trees included within the systems.

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The floating ecosystems are attached to weighted steel cables by large rings which allow them to float up and down to match the current water levels, this means they will not pose any flood risk during high flow periods and will also withstand the flooding and not take much, if any, damage.

Once fully established the ecosystems will offer multiple benefits to the environment, the above surface vegetation significantly increases the diversity of plants on this stretch of river, creates a pollinator/green corridor, offers cover for small bird species in the feature tree planters and creates a nice visual aspect for visitors to the Embankment. Under the surface the trailing root systems will provide much needed cover for fish species, as well as a food source from the invertebrates which use the ecosystem for a home. Fish will also benefit from potential spawning habitat of the trailing roots. Water quality will also be improved as the ecosystems become a haven for micro-organisms which will use algae, carbon and other nutrients from the water as food, leading to purification of the water.



Monitoring

Invertebrate monitoring has been scheduled to be carried out annually to compare the floating ecosystems to the concrete that lines the rest of the banks on this stretch. This data will be used to find if there has been increases in species diversity & numbers.

Fish monitoring is carried out every three years on the channel by the Environment Agency and it is hoped that the use of the side scanner will show how effective the floating ecosystems are for fish refuge. This report will be made available with its findings when produced.

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Contact information

For further information regarding the restoration project that took place at Whitworths Mill or any other enquires please contact the Nene Rivers Trust:

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Contractor Information

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