

# Improving the Through Ways for Fish

## Project Timeline

The timeline below sets out our key project milestones with some already completed. Please note that successful delivery of the project will depend on obtaining the required consents and planning approval.

May 2021	Aug 2022	Jul 2022	Sep 2022	11 Oct 2022	Oct 2022	Nov 2022	Nov 2022
Preliminary assessments and option selection	Flood risk modelling	Ecological assessment	Start of consultation	Public consultation meeting	End of consultation; team review feedback	Reviewing responses; design evolution	Planning application submission

*\*Dates are subject to change.*

## Public Consultation Meeting

You are invited to attend a meeting where we will be sharing more information and will be able to discuss our proposals for improving fish passage on the River Colne at Thorney Mill Weir, West Drayton. The meeting will provide the opportunity to meet the project team, find out more information about the project, ask questions and provide feedback.



Figure 6. Fish in the River Colne

Meeting date: **Tuesday 11th October 2022**

Meeting time: **1:00pm – 6:30pm**

Meeting location: **Southlands Art Centre, 75 The Green, West Drayton, UB7 7PW**

## Have Your Say

We encourage you to provide feedback on our proposals through the fish improvement consultation questionnaire, available online, <https://www.colnevalleypark.org.uk/west-drayton-fish-passage-improvement-project/> the consultation evening or with this leaflet. You can respond to the consultation until 11.59pm on 25th October 2022. Your feedback will be used to refine the preferred option and produce a final design for the project. Contact details:

Phone: 01895760613

Address: Groundwork South, Colne Valley Park Visitor

Email: [enquiry@colnevalleypark.org.uk](mailto:enquiry@colnevalleypark.org.uk)

Centre Denham Court Drive, Denham, UB9 5PG

# Improving the Through Ways for Fish on the River Colne in West Drayton



Groundwork South, Colne Valley Park Visitor Centre  
Denham Court Drive, Denham, UB9 5PG  
Office: 01895760613  
[enquiry@colnevalleypark.org.uk](mailto:enquiry@colnevalleypark.org.uk)  
[www.groundwork.org.uk/Sites/South](http://www.groundwork.org.uk/Sites/South)  
[www.colnevalleypark.org.uk/](http://www.colnevalleypark.org.uk/)

CHANGING PLACES  
CHANGING LIVES



Groundwork South, Colne Valley Park Visitor Centre  
Denham Court Drive, Denham, UB9 5PG  
Office: 01895760613  
[enquiry@colnevalleypark.org.uk](mailto:enquiry@colnevalleypark.org.uk)  
[www.groundwork.org.uk/Sites/South](http://www.groundwork.org.uk/Sites/South)  
[www.colnevalleypark.org.uk/](http://www.colnevalleypark.org.uk/)

CHANGING PLACES  
CHANGING LIVES



# Improving the Through Ways for Fish

## Why we Need to Improve Through Ways for Fish

Groundwork South and the Environment Agency are working in partnership with Hillingdon Council and London Wildlife Trust to deliver the West Drayton Fish Pass Improvement project which aims to resolve the following series of issues affecting the River Colne at West Drayton Mill.

The presence of Thorney Mill Weir, by Thorney Mill Road, West Drayton, has over time:

- Prevented the free passage of migratory fish upstream. This results in fish being unable to access the habitats they require to survive, which affects the resilience of fish stocks within the river catchment.
- Caused impoundment (where water levels are artificially raised above their natural level) and therefore the river does not flow naturally. This prevents native aquatic plant growth

degrading the habitat available to both invertebrates and fish species.

The proposal for improving through ways for fish focuses on adjusting the existing barriers to reduce impoundment and enable passage for a larger variety of fish species. In addition, by improving the river's natural flow, we will also help to prevent the build-up of invasive species such as floating pennywort.

There are three barriers on the River Colne at West Drayton Mill (shown in Figure 1) which cause impoundment and prevent the passage of fish and eels swimming upstream.

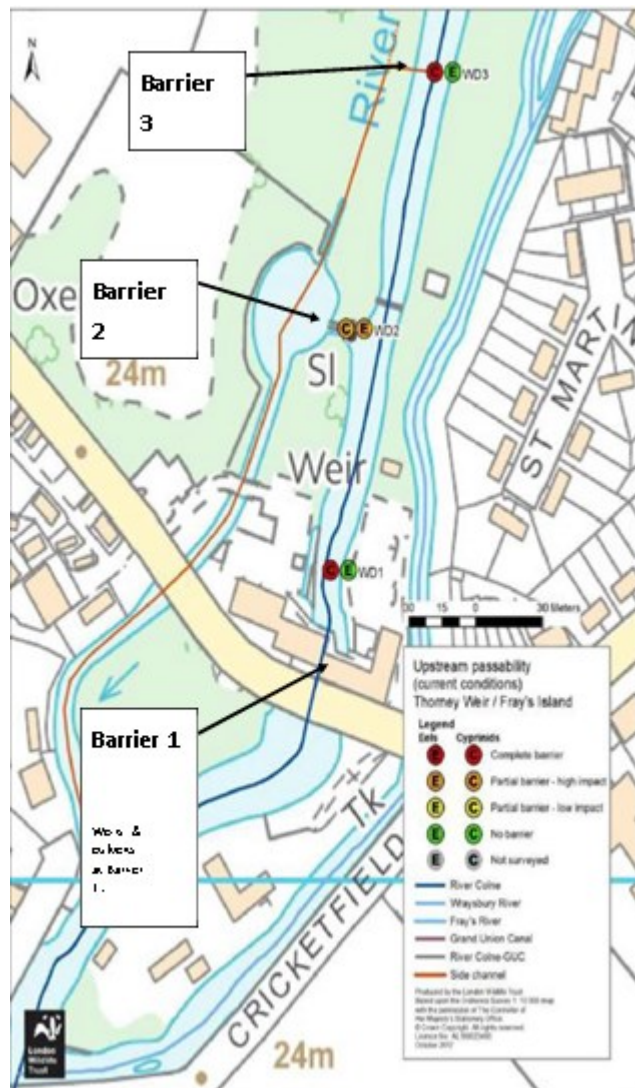


Figure 1. Barrier to Fish Passage at West Drayton Mill



Figure 2. Barrier 1 to Fish Passage at West Drayton Mill



Figure 3. Barrier 1 to Fish Passage at West Drayton Mill



Figure 4. Barrier 1 to Fish Passage at West Drayton Mill

## Investigations to Improvement Through Ways for Fish

We have undertaken rigorous assessments and modelling of these structures to determine a sustainable solution and to understand how any proposals would impact flood risk, the flow of the river, ecological habitats, and the surrounding buildings and communities.

**Ecological assessment:** Detailed ecological assessment occurred to ensure any priority species are identified and the proposals do not have any negative effects. Non-native invasive species were investigated to ensure location and severity are known so appropriate mitigation techniques and biosecurity techniques are implemented during the construction phase.

**Flood risk:** We understand local concerns given flooding events in 2020 and 2021. The team have carried out professional hydraulic modelling to ensure that our proposals do not have any adverse impacts on flood risk. Our assessments concluded that the proposals will not increase flood risk.

**Heritage consideration:** The Thorney Mill Weir (Barrier 1 shown in Figure 2) which once provided a vital source of employment for the local area is located under the Grade II\* Fray's Cottage Old Mill House. In addition, the weir and old mill house fall within West Drayton Conservation Area.

Today the mill is no longer functioning and has been converted into Waterford House, a series of flats providing homes for the local community. Numerous culverts dividing the river still lie underneath the mill structure which create an impassable structure to fish and eels. We will ensure that the works involved in our proposals for improving fish passage will be sympathetic to the listed structure.

**Construction impacts:** The construction management plan is yet to be determined, however, we will ensure that the public, the environment and users of the river are considered when carrying out the works. Care will also be taken to minimise noise and disruption. Our proposals will not have any impacts on the integrity of the existing buildings at Thorney Mill.

During the construction phase of the project walking routes and throughfare will still be accessible in the nature reserve with diversion signs in place, where necessary.

For more information

<https://www.colnevalleypark.org.uk/west-drayton-fish-passage-improvement-project/>

<https://consult.environment-agency.gov.uk/hnl/west-drayton-fish-passage-improvement/>

environment. The Water Framework Directive law upon our departure from the EU.





# Improving the Through Ways for Fish

## Proposal to Improve the Through Ways for Fish

Barrier 1 (shown in figure 1 & 2 ) is the main weir which is holding water back creating an impoundment and barrier to fish passage. An impoundment is the effect seen upstream of a structure within a river channel holding back water (such as a weir or a dam). This causes the water to slow down, and become ponded for several meters upstream. This ponding causes sediments carried by the river to drop out onto its bed and due to the lack of energy within the water column conditions floating pennywort thrives. Over time, silt can build up behind structures and prevent the exposure of clean gravels and clear water that we associate with chalk streams.

We are proposing to remove two of the side weirs at Barrier 1 (see red line in Figure 2) to achieve a reduction in impoundment on the Main Channel and improvement of fish passage at Barrier 1. The flow of water and sounds of trickling water will remain while enabling the free movement of fish through this barrier.

In addition to fish passage improvement, the proposed solution will also result in the water level dropping by approximately between 0.24m and 0.5m for at least 700m upstream. Providing an opportunity to enhance the river flow and habitats helping to contribute improving the River Colne's status under the Water Framework Directive\*.

No alterations will be made to Barrier 2. Barrier 3 will remain at its current level with the potential for modification in the future if desired by the landowner.



Figure 5. West Drayton Barrier 1 with barrier in place



Figure 6. Artistic Impression of West Drayton Barrier 1 with barriers removed

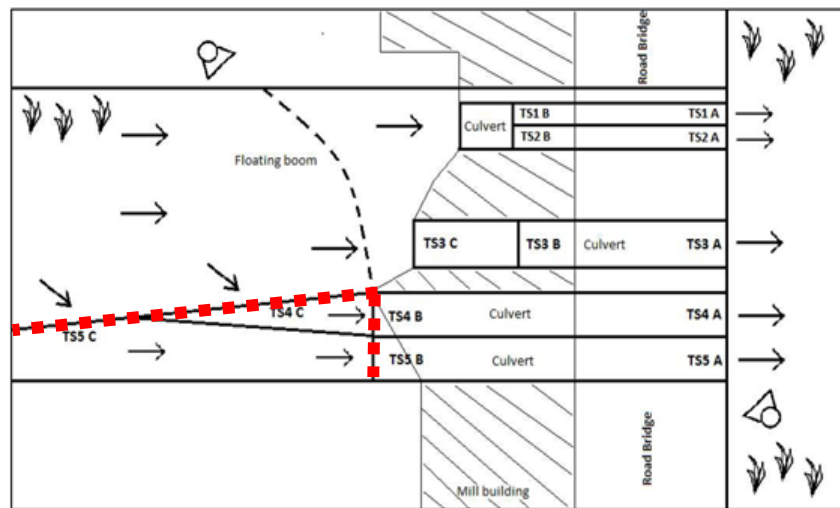


Figure 4. Site plan of West Drayton Barrier 1

## Proposal to Improvement Through Ways for Fish

The purpose of the project is to improve fish and eel passage at Thorney Mill and improve the river habitats upstream of the mill. We have carried out extensive environmental assessments to ensure we are protecting and improving the condition of natural habitats in the River Colne for various species. Our proposal to remove the two side weir at Thorney Mill, will reduce depths upstream of the weir and create a more natural free flowing river. Removing the barriers will enable fish to travel unimpeded along this reach of the River Colne.

Fish populations need free movement along river corridors to access different habitats they require to survive, thus affecting the resilience of fish stocks within the river catchment. This improvement in fish passage will enable free movement for numerous fish species along the river corridor for 16000 m, all the way to Uxbridge and the next non passable barrier in the channel. The types of fish that would be able to benefit from these proposals include dace, roach, chub, pike, common bream, barbel, eel and perch which can all be found downstream of the weirs at Thorney Mill, but currently struggle to pass upstream.

Improving the speed of the river will also help to alleviate the build-up of invasive species such as floating pennywort. Habitats downstream of Thorney Mill /the Side channel and the River Colne confluence would be largely unchanged.

The side channel will become a backwater, with water retained at the downstream level. There will be no flow through the side channel other than during high flow events within the river. Backwater are vital habitat providing areas of still water as a refuge for fish particularly young fish fry that thrive in shallow, protected and warm backwaters. In addition these backwaters also are amazing habitat for wetland birds, bats plants and invertebrates.

\*The European Water Framework Directive came into force in December 2003. It provides an opportunity to plan and deliver a better water rective requires that all European Member states' waterbodies reach Good Ecological Status or Potential by 2027. This has been taken into l