

# Summary report

## Rediscovering the River Colne

September 2020



Presented by  
The Colne Catchment Action Network



This plan summarises the work of Groundwork South, Groundwork East, Connections Community Interest Company, the Hertfordshire and Middlesex Wildlife Trust and the Colne Valley Fisheries Consultative



# Rediscovering the River Colne

## Summary report

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## 1. EXECUTIVE SUMMARY

The Colne Catchment Action Network is advising Watford Borough Council (WBC) on the 'Rediscovering the River Colne' project which, over a decade, will reestablish the River Colne as a community asset for Watford Town. It is more than just an environmental improvement project – it is a large-scale project in which to bring benefits to all through increased activity, improved mental health, learning new skills for employment, improved understanding of the environment and our effect upon it whilst also being an effective response to the current nature and climate crises that are so inextricably linked.

Detailed scoping work has been undertaken (in 2019/2020) using the full breadth of skills across our multi-agency approach. This has resulted in a viable, costed and impactful approach, which is outlined in this report. Total identified works are costed at £2.8m with priorities for the first three years costed at £722,000. Early indications suggest that a number of external funders will be supportive of the work, with £100,000 identified to date, indicating there is support to deliver a legacy project that boasts community cohesion and biodiversity as key benefit areas.

This ten-year project is a huge opportunity for well-considered, focussed attention on the river and surrounding habitats, producing long lasting improvements of scale, supported by and engaging the whole community. As well as delivering WBCs vision to bring back the river to the heart of the town the partnership feels that a stretching biodiversity target should be to help prevent water voles from going extinct in the Colne Valley by establishing a thriving population by the end of the project.

Alongside WBC, delivery will only be possible through a partnership approach drawing on the knowledge, skills, enthusiasm and funding of a range of organisations and the local community. The alignment of the aspirations of this project with those of interested partners and funders, including links to the 'green recovery' in the short term, will be key to its success but the scale and variety of activity identified within the plan shows this is possible and a strength of the approach.

## 2. INTRODUCTION

The Watford Borough Council (WBC) ten-year project, 'Rediscovering the River Colne', is a ground-breaking project that aspires to bring the River Colne back into to the heart of Watford Town and its residents. It will see the river become an asset within the borough, contributing positively to the lives of local people and wildlife, increasing access, biodiversity and amenity value.

The project brief identified a perception that the river is in many parts dirty, inaccessible, unkempt and of low wildlife value. The project will provide sustainable solutions to the issues affecting the river and also seek to regenerate the public spaces it flows through. The intention is to provide a healthy riparian corridor, with clean water, diverse wildlife and low flood risk/water stress, that is accessible to all and of high amenity value. Improving access will enrich the visitor experience, encourage a sense of ownership and provide an oasis of calm in the urban environment. Community ownership, education and awareness are key principles which will underpin each activity delivered.

This project continues WBC's investment into improving their parks and open spaces, is referenced as a priority in the Mayor's manifesto and is embedded in WBC's corporate plan. The scheme brings together the aspirations of a number of different stakeholders including water companies, government agencies, charities, anglers, conservationists and, as it develops will engage local residents and businesses.

The first phase of development work, summarised in this report, to identify aspirations, opportunities, outline plans and costings has been delivered by ColneCAN, the Colne Catchment Action Network. Colne CAN is one of over a hundred catchment partnerships operating across the UK as part of The Catchment Based Approach policy framework launched by Defra in 2013. This link is likely to be useful regarding funding opportunities. It brings a wide variety of organisations to ensure catchment-wide thinking and local action. The partnership unites local stakeholders in achieving six aims for improving the river catchment to:

- control invasive species
- involve people with their local water-bodies
- improve wildlife corridors
- improve water quality
- manage flow
- work together.

As such it is an ideal body to assist WBC in its aspiration to improve the river through the town. This first stage of development of the project has involved Groundwork, the Colne Valley Fishery Consultative, Community Connections CIC and Herts & Middx Wildlife Trust.

## 2. SUMMARY OF PROPOSED WORKS

During 2019 and early 2020 work was undertaken to develop a strategy for the river and its surroundings through surveys, meetings, designs and cost estimates to identify the full scope all potential works to work to achieve the project goals. The potential outputs and outcomes are tabulated initially below, followed by the individual reports themselves of which WBC Parks Department has the full detail including text and supporting plans and costs. To be completed at a later stage is a report on maintenance costs.

Alongside this work, and crucial to the success of this project, has been the establishment of a water quality group comprising WBC, Environment Agency (EA) and the local water companies and facilitated by Groundwork.

Activity area	Output	Potential outcomes
<b>River Improvement</b>	Eight river improvement plans – focussed on the main recreational sites	<ul style="list-style-type: none"> <li>• Improved functioning river &amp; adjacent habitat management</li> <li>• Improved biodiversity including thriving water vole population</li> <li>• Reduction in flood risk</li> <li>• Removal of invasive non-native species</li> <li>• Reduced pollution</li> </ul>
<b>Landscape and access</b>	Report and action plan bringing together the river improvement plans above with landscape and access proposals	<ul style="list-style-type: none"> <li>• Accessible river corridor</li> <li>• Improved river signage</li> <li>• Creation of destination areas</li> <li>• Creation of a heritage themed walk</li> <li>• Potential new river crossing</li> </ul>
<b>Environmental monitoring</b>	Report and programme proposal	<ul style="list-style-type: none"> <li>• Creation of a Citizen Science Network</li> <li>• User-led monitoring activity programme</li> <li>• Increased volunteering opportunities</li> <li>• New early warning for pollution incidents, water levels and invasive species</li> </ul>
<b>Engagement</b>	Report on the potential for a large scale community engagement programme	<ul style="list-style-type: none"> <li>• Increased volunteering opportunities</li> <li>• Involvement of a wider range of the Watford community</li> <li>• Improved opportunities for health and wellbeing of residents</li> <li>• New education programmes and materials for schools</li> <li>• New arts and heritage projects</li> </ul>
<b>Funding</b>	Fundraising strategy & list of potential funders	<ul style="list-style-type: none"> <li>• Increased community and business engagement</li> <li>• Capacity building support for the local community</li> <li>• Diverse and sustainable funding</li> </ul>

## 2.1 River improvement plans

For each site detailed botanical and modular river surveys were completed by the project team. The eight reports then

- record the present situation including current land use, the river channel profile and course, floodplain and bank face habitats, river bed habitat substrate and flow type, any artificial structures, invasive species found, site ecology and reviews water quality
- propose relevant habitat improvement recommendations in text and map form
- present a site action plan with estimated costs

The level of detail in the research and assessment allows certainty as to the options identified, is at a sufficient level of detail to satisfy the EA as a regulator and potential funder and also, we hope will assist local planning authorities in developing policies for river environmental protection.

### Summary of issues

- The natural profile of the river has been modified overtime, resulting in the degradation of important in-stream habitats and a lack of connectivity with the floodplain.
- The artificially enlarged nature of the channel means that it is prone to severe low flow conditions, Climate change will have a profound impact on the river if no action is taken to combat this.
- A lack of habitat management has resulted in the river becoming shaded by trees. This has led to the decline of aquatic plant species and the degradation of important floodplain habitats, such as backwaters and wet woodlands.

- Historic structures such as weirs and mill races act as barriers to the movement of fish species, limiting habitat connectivity and the resilience of fish stocks in Watford.
- There are widespread issues of pollution from the many outfalls feeding into the river due to faulty surface water infrastructure.
- Invasive species including Himalayan Balsam, Japanese Knotweed and American Signal Crayfish are present throughout the river corridor and limit the diversity of native flora and fauna.

#### Opportunities

- Key is the creation of low flow channels – a narrowing of the channel to ensure the river continues to offer good habitat and geomorphology in times of low flow whilst still allowing the wider channel to be utilized for water storage during high flow events. This will help to future proof the river against the effects of climate change.
- Brush berms and flow deflectors to create a meandering effect in over straightened sections of river and to provide important bankside habitat for species such as water voles.
- River bed features such as riffles and pools to provide a range of flow types and improved habitat for fish spawning and invertebrate life.
- Improvements to existing constructed wetlands and the creation of new wetland features to improve floodplain habitat and reduce flood risk.
- The provision of refuge habitat, such as backwaters to shelter aquatic life from disturbances such as pollution or flood events.
- Management of overhanging trees and vegetation to allow more light into the water to increase the variety of native fauna and the aesthetic appeal of the river corridor.
- Smaller scale opportunities such as bat boxes, the eradication of invasive species and river clean ups.
- Opportunities to improve surface water infrastructure to prevent pollution from entering the river.

## 2.2 Landscape and access

### Summary of issues

- The network of green spaces of the river corridor provides an extensive, coherent green corridor through the town and an existing, access network but with poor signage and limited use
- Despite there being some areas of high wildlife and recreational value much of the area is little known, some sites are unimaginative with limited, uninviting access and interpretation and suffer from neglect and misuse
- The majority of use is by very local residents and there is little awareness of the path along the length of the river and links to the wider off-road networks such as the National Cycle Network, rights of way and into the town and surrounding neighbourhoods
- There is no signage or information showing the whole route encouraging wider exploration nor understanding of the areas that they are passing through

#### Opportunities

- To create a continuous, coherent, visible, accessible, signed route along the corridor following the course of the river as closely as possible
- Provide a coherent signage strategy with a hierarchy for site signage, route signage and interpretation. Promoting the use of the new logo.
- The creation of destination areas along the route with seating, viewing platforms and hides as appropriate

- Development of a heritage themed walk, art approach to the 'disconnect' between Tesco and Oxhey Park where the route deviates from the current river but follows the historic route
- Improve elements of furniture, signage and sections of the paths themselves
- Consider creating further access links to surrounding housing areas or a new river crossing from Riverside Park to Riverwell

### 2.3 Environmental monitoring report

This work has produced a full set of survey data on the condition of the river and its habitats and it is important that the conditions are monitored going forward. Not only does this allow an assessment to take place of the effectiveness of the interventions but also provides an opportunity to engage with the public on the issue. As such, the project is structured as a citizen science network (i.e. led by members of the public) to empower local people to take the lead on monitoring the ecological and geomorphological condition of the River Colne over time. It aims to:

- Engage, inspire and train local people and stakeholders to monitor the health of the River Colne
- Complement existing environmental monitoring work conducted by partner organisations locally and elsewhere in the Colne Catchment.
- Collect relevant, useful data that will be used to inform key stakeholders and deliver gains for the local environment
- Monitor the river's recovery over the 10-year duration of the project as habitat and water quality improvements are made

Key stakeholders and partners were consulted to understand what environmental monitoring is already conducted and then how this could be developed further. The report summarised current activity, the methodology, how it could be increased including timescale, coordination required and cost. Activities identified as appropriate to meet the above aims are as below although it is acknowledged that not all may be possible to deliver due to funding constraints. Key to the choice of approach will be the level of interest locally and the ability to include an increased number of volunteers from across the town either on one-off events or taking a longer-term commitment:

- Riverfly monitoring – an early and reliable indicator of water quality and pollution issues. Already being run and simple to expand on with the Colne Valley Fisheries Consultative being the designated Riverfly Coordinator for the area. Aim to increase the number of sites being surveyed and the number of volunteers involved
- Outfall safari – outfalls can be a source of chronic pollution in urban rivers. Outfall safari is a citizen science methodology to locate, assess the impact of and report polluted surface water outfalls. The report proposes to comprehensively map and assess all polluting outfalls in the project area with the first survey being completed by staff members before volunteers are brought on board.
- Water chemical analysis – important to identify changes that are not detectable by eye. The report proposes a partnership project with Thames Water to establish a volunteer led water sampling programme. A key element will be to assess the levels of ammonia and phosphate at six new monitoring sites
- Geomorphological surveys – to study habitat diversity, physical habitat and hydro-morphological functioning of the river and its margins and is recognised by statutory bodies and is the format of the river restoration reports
- Non-native invasive plant species – establish a robust monitoring and mapping process to identify sites and identify treatment approaches
- Dragonfly and damselfly monitoring – an important indicator of ecological balance. The aim is for the first comprehensive survey to take place.

- Fish populations – to complement the citizen science monitoring activities the Environment Agency has extended its fish populations surveys in Watford from one to three sites. Volunteer citizen scientists will be invited to observe the surveys and access the results.

## 2.4 Engagement plan

The aim of this activity is that through the community engagement plan the river corridor will be brought into the heart of the community through a programme of volunteer days, events, information and tailored communications, enabling local people to become actively involved in and stewards of their environment. The projects role in linking people to activities as part of the green recovery from Covid19 will be a key opportunity.

A community and organisation focused survey was created to ascertain current river Colne uses, events and activities that are being run, people's views on additional events/activities, current issues preventing people using the Colne and whether people would be willing to volunteer in the future. 131 responses were received and following assessment of this information a meeting was run to discuss opportunities in more detail. Further meetings were then held with specific groups including Watford Museum, Veolia, art groups, existing 'Friends' and resident groups. A list was also collated of businesses within 150m of the Colne to allow an approach to be made to them in the future.

From this work the following themes for activity were identified:

- Arts and heritage
- Education
- Health and wellbeing
- Public outreach
- Volunteering & conservation

A three-year plan of potential activity has been developed following an excellent, varied response to the research. The activity will be delivered by a range of the partners and groups that responded but to make the most of the opportunity it is recommended that a part time officer role be recruited to co-ordinate this work, promote the opportunities fully and also to encourage engagement from more currently under represented and harder to reach groups.

First year project priorities include:

- Developing an annual programme of events and activities, run by partners and actively promoted
- Friends group establishment
- A community river festival
- A history of the Colne event
- River workshops
- Historic Watford Colne walks/wider route walks – web based
- School activity coordination
- Watford-wide sustainability and water saving and quality messaging programme – to align with water company aspirations

## 2.5 Total costs

All costs identified are plus VAT at the prevailing rate. The treatment of VAT will need considering depending on the source of the funding secured. Estimates for physical works are the worst-case scenarios based on the likelihood that all materials will be contaminated and removed from site.

**Total estimated cost for all activity over ten years is £2,802,000**

### River improvement and landscape & access works

Site	Signage	Route impr/creation	Other landscape/ furniture/ misc.	Art	River works	Total
Knutsford	9,250	15,750	8,750	15,000	92,450	<b>141,200</b>
Timberlake	7,500	12,000	23,250	0	278,300	<b>321,050</b>
Radlett Road	7,500	26,500	3,750	0	497,800	<b>535,550</b>
Waterfields	8,000	12,000	0	0	125,000	<b>150,000</b>
Tesco/disconnect	12,000	36,000	0	50,000	1,500	<b>99,500</b>
Oxhey Park	8,000	12,000	5,000	20,000	20,600	<b>65,600</b>
Riverside Rd/Pk	5,500	310,000	3,500	0	69,500	<b>388,500</b>
Lairage Land	4,000	20,000	500	0	164,500	<b>189,000</b>
<b>Total build</b>	<b>61,750</b>	<b>444,250</b>	<b>44,750</b>	<b>90,000</b>	<b>1,249,650</b>	<b>1,890,400</b>
Contingency 10%						<b>189,040</b>
Fees est 15%						<b>283,560</b>
Inflation						<b>56,712</b>
<b>TOTAL COST</b>						<b>2,419,712</b>

### Environmental monitoring

To deliver all elements of monitoring identified within the report for ten years including the water quality forum and report will cost: **£240,000**

### Engagement

The costs are based on employment of the part time officer via a community partner supported by a capital fund to support activity by all partners. Three years of employment and activity is identified after which it is anticipated that the programme will be well established and can be delivered via the Friends Group and WBC with capital supported by WBC and local fundraising. Cost for three years: **£142,500**

## 2.6 Identification of Improvement Priorities for first three years

Priorities have been identified by considering which works and activities best meet WBC and the Mayors priorities as identified in the original brief. Also considered has been the practicality of work and opportunities for funding in the near future including the potential Green Recovery Fund which will be launched soon.

Clearly WBC, central Government and potential funders priorities will change over time. Also, the detail of potential work may change as the next stage of designs are undertaken. As such the priorities should be regularly reassessed and the action plan updated in the light of these changes.



Indicative costs below include 15% fees and 10% contingency and inflation but are still exclusive of VAT. Costs are also only relevant if the full chosen works are implemented as the scale brings certain savings. If elements are removed then costs will need adjusting.

**Total cost of priorities for the first three years is £721,500**

Access & signage – to meet the priority of the Mayors manifesto signage of the whole route and initial physical work to ensure an accessible route exists along the whole route. Also, development work on the disconnect section including heritage/art elements **COST: £90,000**

River restoration work – due to the close proximity of work and closely linked environmental outputs the four most northerly sites are identified as the priority for action– Knutsford, Timberlake, Radlett Road and Waterfields. This would include – 2 stage channel and wooded debris installation, wetland scrapes, backwater restoration, marginal berms and tree works as required per site. Design and permitting would take place in 2021-22 with delivery taking place in 2022-23. **COST: £355,000**  
**£100,000 has already been indicated towards these works via EA and Affinity Water providing that WBC can provide match funding.**

Community engagement – 50% post and funds to - create a Friends group and culmination in river festival in year 1 alongside an activity programme run by a range of local Watford groups and organisations; Year 2 & 3 support/grow existing interest from schools, develop engagement programme with local businesses, widen the spread of engagement with hard to reach groups, management of larger programme of engagement **COST: £143,000**

Environmental monitoring – to run all proposed works over the first 3 years including the Watford Water Quality Forum **COST: £133,500**

### **3. SUMMARY OF FUNDING STRATEGY**

Fundamentally the work planned across the Rediscovering the River Colne project is environmental in nature, including both physical improvements and also community engagement, stewardship, care and use all of which are essential to the success and sustainability of the project. The diverse range of activities planned provides a wider range of potential funding sources than might traditionally have been available to a “purely environmental” project. This can include funds focussed on: education and training, working with marginalised or vulnerable groups, health and wellbeing etc. Creativity will be key and a clear alignment with a range of agenda across the public and private sector required. Opportunities will often come up with short timescales for action and it is important that the funding plan is dynamic, agile and flexible to meet needs and opportunities as they arise. The project should benefit greatly from the range of partners involved who bring the skills, knowledge and resources to make the most of a wide range of opportunities.

£100,000 has already been pledged to the project from partners, as long as it can be matched by WBC, which shows the level of interest that already exists before the plan has begun to be promoted.

A list of funding opportunities has been developed and can be utilised by all project partners throughout the project as and when projects and funding opportunities arise. The pandemic will clearly have an effect on the funds available in the near future but should also provide opportunities as we align the priorities of this project to the Government’s green recovery proposals.

The funders list initially identifies the larger potential funders for which a plan should be developed for the short term. This includes:

- DEFRA/Environment Agency – the Green Recovery Challenge Fund is expected to be announced in September 2020 with a very short application window and this project is likely to be a close fit to what is required – strong partnership, plans well developed etc. It will also be important to build on the existing links with EA to secure additional funding on top of the £50,000 agreed to date
- Water companies - as well as consideration of specific project bids for support, the companies should be approached at a senior level for wider support of the whole project for a number of years. Possibly via a presentation to be made by the Mayor alongside project partners. Both water companies have already expressed their interest in the project with Affinity Water identifying £50,000 potential funding for 2021-22 financial year
- WBC
  - internal bids for support are planned for September 2020 and this support will be needed to release the support of other partners such as the Environment Agency and the water companies.
  - A review of any unspent/unallocated S106/CIL funds should take place and approaches made to Hertfordshire County Council and potentially adjoining local authorities to identify any opportunities.
  - Key for the success of the project is the need for the project to be high in the awareness of all departments of the Council but particularly the planning department at WBC to identify opportunities for S106/CIL and also biodiversity net gain within new developments. A presentation by the partners could be held to support this if required.
- Lottery – a meeting with Lottery is proposed to discuss how they feel the project best fits their new funding opportunities. There has recently been an advance indication of a Green Recovery Fund via Lottery to which a bid could be made during September if felt appropriate.

Following this initial activity other bids to national Trusts and organisations should be planned and then, as the project gains recognition locally, the smaller, local funds on the list will open up and the active community engagement and role of the Friends Group will become more important to front these alongside other partners.

Also identified in the funding strategy are non-financial opportunities for support including corporate engagement including building on the successful relationships that exist with companies such as Veolia.