

A Landscape Vision for the Lower River Crane



Visioning document created by
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“As with most urban rivers, certain reaches of the River Crane have been forgotten and neglected for many years, nowhere more so than the concreted lower sections running through Twickenham, St Margarets and Isleworth. The vision illustrated in this document demonstrates a bold attempt to not only improve and re-naturalise these areas, but also to reconnect people with their local river and associated wildlife. I earnestly support this marvelous project and believe it will enhance the lives of wildlife, humans and the river for years to come.”

A handwritten signature in black ink, which appears to read 'David Attenborough'. The signature is fluid and cursive, with a large, stylized 'A' and a long, sweeping tail.

Sir David Attenborough



Vision of Craneford with naturalised river, extended wildlife habitats and integrated public access and recreation opportunities (front cover image)



Existing view of vision image for Craneford (front cover image)

Foreword

Thanks to the determined support and actions of the Crane Valley Partnership, improvements to the historic River Crane corridor in West London have been ongoing for many years. Recently, the creation of footpaths, signage or habitat have enhanced the experience of visitors and the river's ecology in locations reaching from the river's headwaters in Harrow, down through Yeading Brook Meadows, Crane Bank and Crane Park, along the Lower Duke of Northumberland's River and on the tidal Crane. However, one significant reach of the river corridor remains untouched by any improvements. This is the lower River Crane, downstream of Mereway Weir. This stretch of river runs through densely populated areas in Richmond and Hounslow, yet does not fulfil its potential to enhance the experience of the many people who live and work there. There are many challenges involved in designing and implementing large-scale improvements to the river and its surrounding landscape in this dense urban environment. Ad hoc, piecemeal improvements in one location will have little impact and might even interfere with, or prevent, improvements elsewhere. Therefore, it is essential to consider the Lower River Crane as a unified whole, and to lay out a single, holistic vision for its improvement.

This document lays out such a vision, as conceived by members of the Crane Valley Partnership. Other stakeholders and members of the community will have their own ambitions for the sites along the River Crane, and these too must be integrated and incorporated into any final plans. It is hoped that this document will serve as a catalyst to start these conversations.

The vision aims to demonstrate the natural link between the River Crane and the River Thames, with a much improved 3 km river corridor linking with the rest of the River Crane Catchment. It covers five west London boroughs. This would be a major environmental achievement for London. It would enhance and create four large scale and integrated urban and natural landscapes and river habitats. These would become higher value open spaces for local people and the wider population of west London.

Enhanced walking and cycling routes along these spaces would greatly improve the local network, creating new links between Twickenham, St Margarets and the River Thames at Isleworth. The schemes can be designed to incorporate flood risk benefits. The delivery and maintenance of the project would be achieved in part by engaging local volunteers, linking the project into the local community and providing opportunities for outdoor exercise, social engagement and environmental/leadership training. The spaces created would be a significant educational asset for schools, colleges and the wider community. Greatly enhanced local spaces would provide a wider uplift to the economic prosperity of a neighbourhood. This would boost property values, encourage new and higher value business to re-locate, and create direct new jobs in associated leisure activities.

Project Steering Group

April 2017

Introduction

The Crane Valley Partnership's Vision for the Lower River Crane Landscape introduces initial design ideas and identifies opportunities for an ambitious and challenging project to restore the lower stretches of the River Crane. Elsewhere in London and further afield, river restoration has brought many benefits to communities and this project will seek to bring those benefits to the lower River Crane.

These initial ideas look to embrace and demonstrate the potential of four sites along the banks of the river, integrating them into an overall vision for the restoration of the existing river channel. **The significance of this river regeneration will run beyond the river and its banks by:**

- enhancing the daily experience of the surrounding communities and reconnecting them with the hidden natural environment that runs through their urban landscape
- complementing and benefiting the living and working environments of the people and businesses that share this place
- creating an inspiring natural landscape that people can have access to and enjoy
- promoting health and well-being while protecting and enhancing the natural ecology of the lower River Crane and its surroundings

This visioning document aims to stir the imagination of all members of the community, be they public, private or commercial. *It is not intended as a detailed physical proposal at this early stage. But it does aim to paint a picture of an inspiring, sophisticated and holistic ambition.*

It is the very first stage of a long term process of design development, consultation and teamwork that looks to nurture and deliver this ambitious project over the coming years.

The local community, local authorities, developers, local business, and commercial and philanthropic funding partners are invited to join the Crane Valley Partnership in making this vision a reality.

The Crane Valley

The river course that feeds and becomes the River Crane is 36 km long, starting as the Yeading Brook in the London Borough of Harrow. Downstream of Hayes in the London Borough of Hillingdon, the river becomes known as the River Crane as it winds its way down through the London Boroughs of Ealing, Hounslow and Richmond upon Thames.

At Mereway Weir in the west of Twickenham, the river splits into two channels. One is the artificial Duke of Northumberland's River. The second is the lower River Crane through Twickenham, St Margarets and 'old' Isleworth. Beyond the A316 until it reaches the River Thames, it defines the Borough borders, with Hounslow on the left bank and Richmond upon Thames on the right bank.

For nearly all of the 3 km stretch between Mereway and Cole Park Island, the river runs in a straight, wide concrete channel interrupted by numerous weirs, with fragmented public access.

Existing site photographs of each study area



1. Completed river rehabilitation works upstream of the study area at Crane Park



2. Mereway Weir at the start of the lower River Crane (Study Area 1 : Mereway and Craneford)



3. Concrete channel and green spaces (Study Area 1 : Mereway and Craneford)

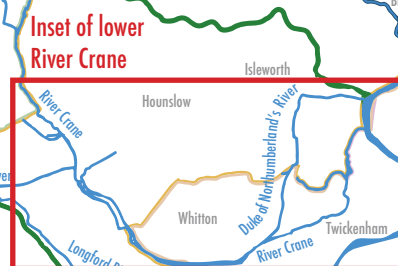
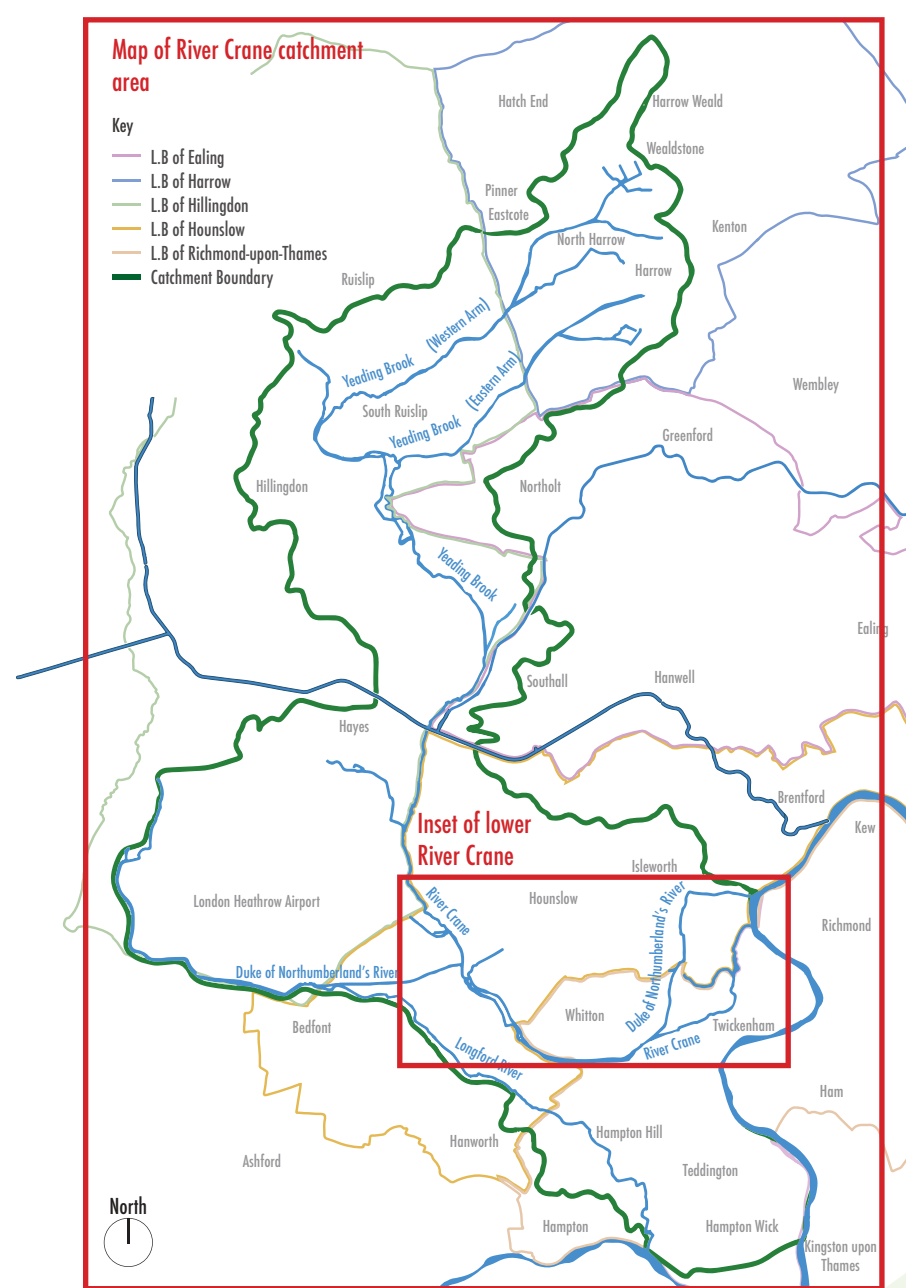


Typical view of existing concrete river channel of lower River Crane (Craneford)



Typical context of lower River Crane hidden from view within its surroundings, such as here at Moormead Park





4. Ignored at urban centre
(Study Area 2 : Twickenham Rough and Twickenham Town Centre)



5. Hidden at Moormead
(Study Area 3 : Moormead)



6. Tranquil habitat at Cole Park
(Study Area 4 : Cole Park Island)



7. Unique tidal habitat at Northcote

This is a legacy of the continuing expansion of urban Greater London, particularly during the 1920s and 1930s, and more recently during the 1960s. The encroachment of the built environment and associated influences had a profound impact on the physical character and ecology of the river over centuries, resulting in drastic modifications of the majority of the lower River Crane channel.

The wide concrete channel and bed replaced the meanders, natural river banks, marginal and aquatic habitat and floodplain associated with the original river. As a result, the river has little habitat for wildlife and is poor in the animal and plant species that should flourish there. The physical relationship and identifiable bond between river and landscape and ecology was turned on its head, and the river became almost forgotten to most people.

Downstream of Cole Park Island and allotments, much of the natural river bed and banks still survives over the final 800 m before it enters the River Thames at Isleworth. Here the River Crane is tidal and is designated as a 'Site of Metropolitan Importance for Nature Conservation', supporting a very rare and diverse ecological environment within a dense urban setting. This tidal section is now being further enhanced with an ongoing project for the establishment of Northcote Nature Reserve, along the banks of the river at Northcote Recreation Ground (historically known as Pit Park).

Strategic site introduction

This visioning strategy identifies four study areas, each with complementary open green spaces and urban places that define its character, running from Mereway Weir to Northcote Bridge at the far end of Cole Park ‘Island’. In each area, there are significant opportunities for existing private property and community facilities to be part of and benefit from this integrated and holistic vision.

As with nature, the quality of urban interaction and human experience is not just about the grand plan. It is also about the layers of individual moments and details, which often provide the substance. Both scales of engagement work together to create a stronger and more rewarding whole. The overarching design principles that apply across all four study areas, and encompass the whole of the lower River Crane landscape, are as follows:

Coherent and continuous access and interpretation

- all four sites will be linked by a continuous, connected network of paths and cycleways, allowing people to engage with and enjoy the lower River Crane and its natural habitats
- historical and environmental features will be identified and celebrated through the use of consistent signage and interpretation
- fencing will be removed wherever possible to allow views of the river
- the historic river channel will be recognised in signage and in new landscape features that reflect the river’s original course

Cohesive river restoration strategy

- there will be a preference for using the historic course of the river
- full naturalisation is focused on more publicly accessible areas that benefit public amenity
- channel narrowing and habitat improvements within the existing channel in remaining stretches of the river, to provide habitat continuity and improve river flow
- passage for fish throughout the lower River Crane, removing or modifying barriers
- improved flood water storage capacity in naturalised stretches
- upstream river flow to be diverted into the lower River Crane during dry spells

Study area 1: Mereway Nature Park & Craneford Way Recreation Ground

L.B. Richmond upon Thames
The river runs through open space owned by London Borough of Richmond upon Thames and Richmond College. An outdoor classroom, surrounded by dense scrub thickets, is used by schools, while students take advantage of the amenity grassland for walking and relaxation. Although often visible from a nearby path, the river is inaccessible and currently adds little value to the space. A substantial area of amenity grassland is being converted into playing fields for the college. There are substantial opportunities for naturalisation and improvements to the river and surrounding landscape at this site.

Study area 2: Twickenham Rough & Twickenham town centre

L.B. Richmond upon Thames
Running through the heart of Twickenham, buildings crowd the River Crane on both banks throughout most of this largely inaccessible reach. Opportunities here revolve around in-channel enhancements, rather than full restoration, and access improvements.

Study area 3: Moormead and Bandy Recreation Ground (known as Moormead Park)

L.B. Richmond upon Thames
A large recreation ground with wide areas of short-cut grass. Mostly used by dog walkers, it lacks features of interest other than a football pitch. A disused pavilion has potential for community use if more visitors could be attracted to the park. The river is hidden behind an overgrown fence along the edge of the park. There are opportunities to create an attractive visitor experience by integrating the river with the park landscape.

Study area 4: Cole Park ‘Island’

L.B Hounslow
The River Crane is joined by the Whitton Brook before splitting around the Island. On the right, a heavily silted stretch of the original lower River Crane meanders along its historic course between natural banks. On the left, the river runs in a deep concrete channel. There is no public access – today, only enjoyed by allotment holders and adjacent houses. Opportunities exist for naturalising the river and opening it up for public access.



Vision of Moormead Park, meandering river landscape and wildflower meadow



Existing view of vision image for Moormead Park (above)

Examples of the cultural heritage of the area



Ford at Cole Bridge, Twickenham Town Centre (Archive photograph)



Marsh Farm Lane, Twickenham



Heatham House Painting (anonymous artist circa 1750)



Moormead Park (Archive photograph)



Skiffle - The Crane River Jazz Band (Album cover image)



Vision of tidal inlet and wildflower meadow at Northcote Nature Reserve



Existing view of vision image for Northcote Nature Reserve (above)



Study area 1: Mereway
Nature Park & Craneford
Way Recreation Ground

L.B. Richmond upon Thames

Mereway:

River: “... water falls over the weir, and through rolling, winding berms steering a course downstream.”
Landscape: “Nature Park and habitat merge with water’s edge around a welcoming river bank. It defines a gathering space for learning, and an introduction to the river.”

Opportunities:

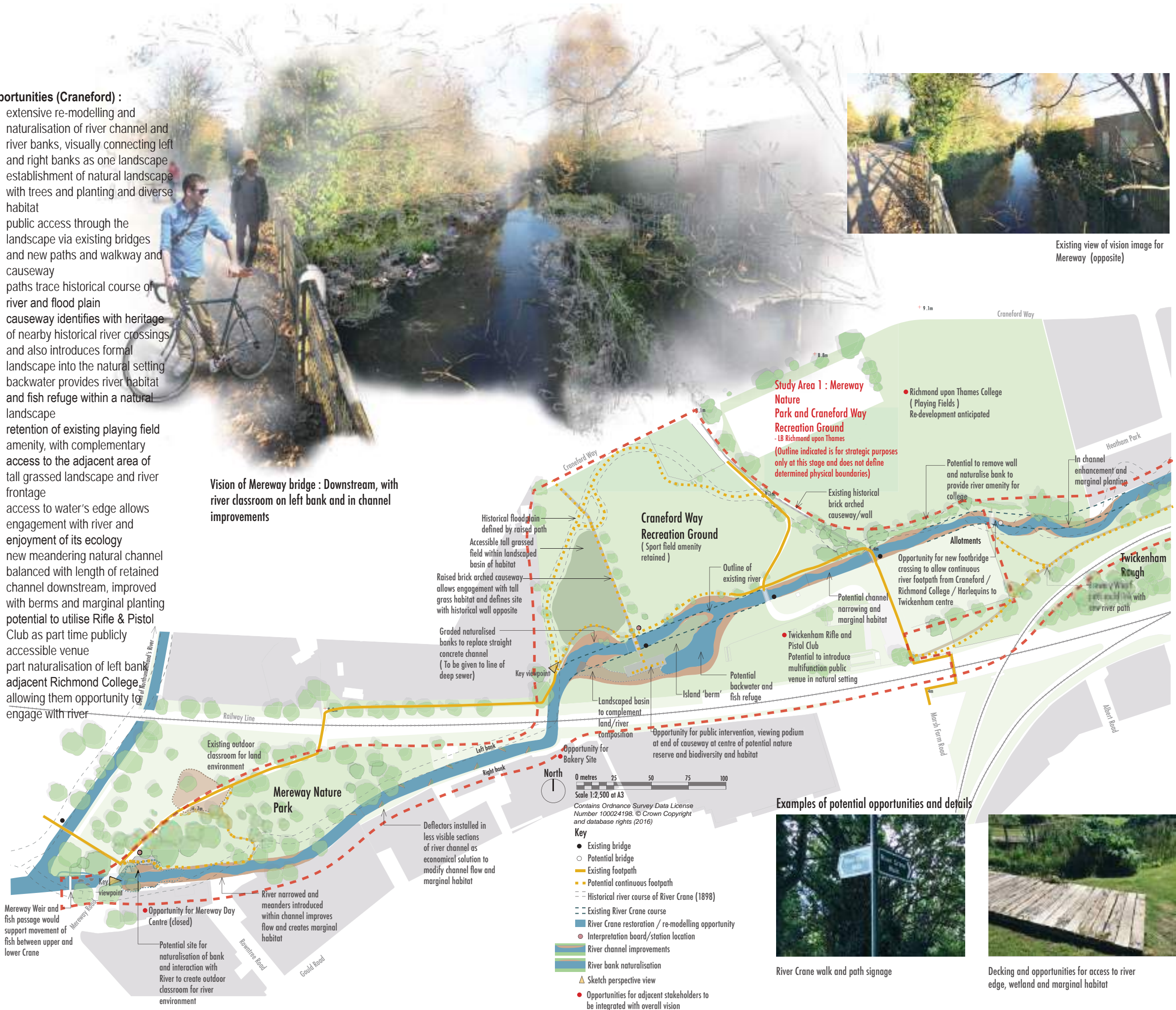
- river classroom to complement the existing nature park classroom nearby
- utilisation of slipway on left bank, providing river access and engagement
- narrowing of river channel within concrete walls and introduction of marginal planting and habitat
- interactive signage, research and interpretation station (part of a network along lower River Crane)
- fish pass to allow migration through Mereway Weir
- naturalisation of left bank around classroom/slipway
- potential integration of naturalisation/terracing of right riverbank of L.A. ‘Daycare’ building opposite slipway, creating enhanced use/setting

Craneford:

River: “... a wide sweep merges river and banks as one. Water’s edge embraces a rich habitat of long grasses and reeds, gently sloping banks and protected backwater.”
Landscape: “River and land engage around a wide, romantic landscape of fields and thicket, and rustling swathes of tall grasses and reeds. Walkways and causeways reflect upon ‘bygone’ paths of ‘people and river’. Path and river flow through the landscape, to enjoy and share this tranquil and uplifting retreat.”

Opportunities (Craneford) :

- extensive re-modelling and naturalisation of river channel and river banks, visually connecting left and right banks as one landscape
- establishment of natural landscape with trees and planting and diverse habitat
- public access through the landscape via existing bridges and new paths and walkway and causeway
- paths trace historical course of river and flood plain
- causeway identifies with heritage of nearby historical river crossings and also introduces formal landscape into the natural setting
- backwater provides river habitat and fish refuge within a natural landscape
- retention of existing playing field amenity, with complementary access to the adjacent area of tall grassed landscape and river frontage
- access to water’s edge allows engagement with river and enjoyment of its ecology
- new meandering natural channel balanced with length of retained channel downstream, improved with berms and marginal planting
- potential to utilise Rifle & Pistol Club as part time publicly accessible venue
- part naturalisation of left bank adjacent Richmond College, allowing them opportunity to engage with river



Study area 2: Twickenham Rough & Twickenham town centre

L.B. Richmond upon Thames

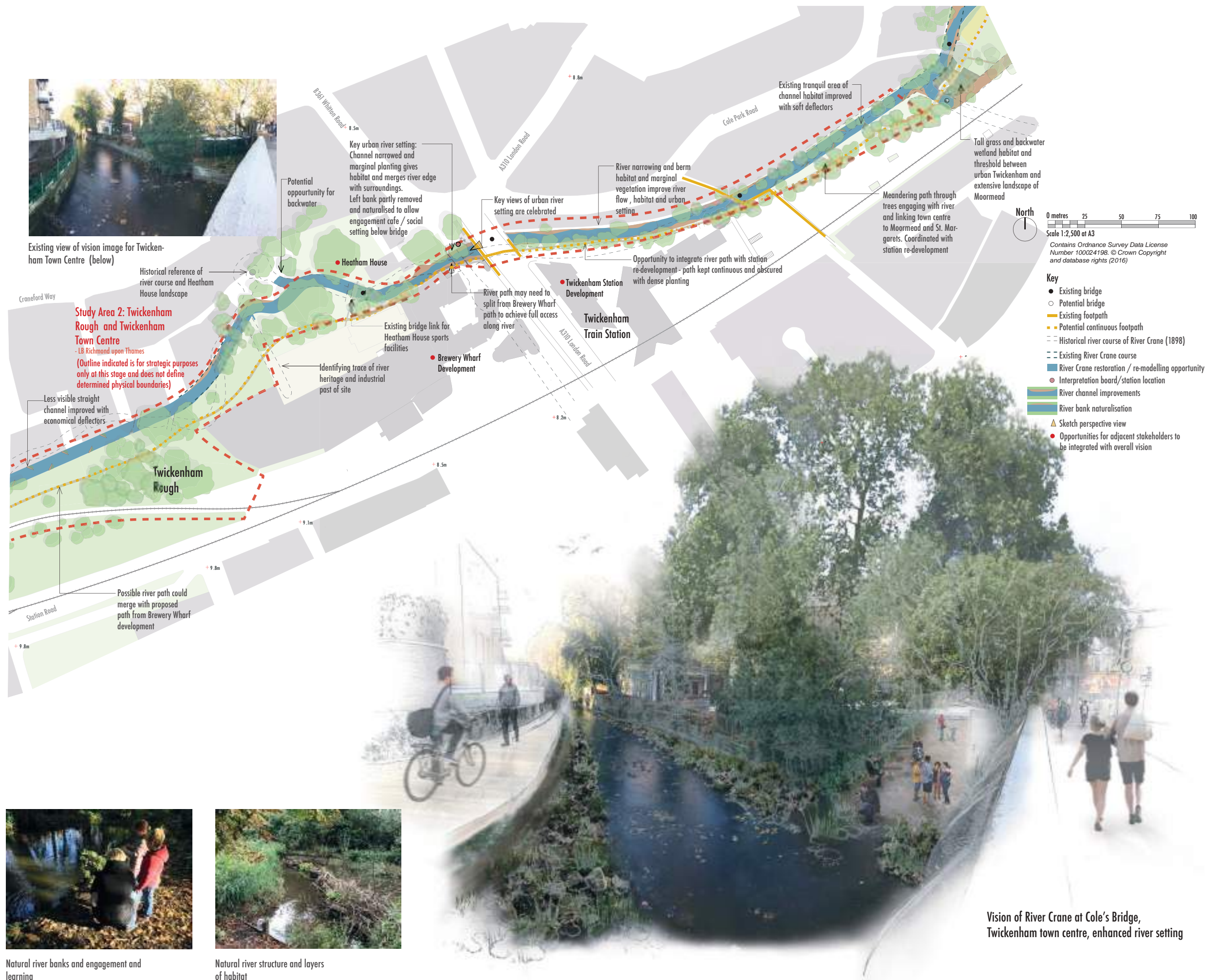
Twickenham Rough & Twickenham town centre:

River: *"The secluded channel, narrowed and greened with marginal planting. The gentle rhythm of timber deflectors provide home to nesting water birds. Meanders and natural bank pass by historic Heatham House. People sit on the river's edge, taking a respite from the urban bustle, while sipping a coffee."*

Landscape: *"Woodland walkway and a route through remnants of a railway past. There is the faint echo of an imaginary Skiffle band on the left bank. River and path briefly emerge into the heart of the town, and then beyond, towards the calm of Moormead."*

Opportunities:

- enhancement and narrowing of existing river channel with berms and 'soft' deflectors, improving river flow and providing habitat
- backwater and naturalisation re-establish historical setting at the rear of Heatham House, and provide opportunity for its guests to engage with the river
- industrial heritage and woodland scenery are mixed along improved riverside path, connecting with new path from Brewery Wharf
- possible footbridge allows crossing at Richmond College and continuation of riverside path
- naturalisation of river bank on left bank at Cole's Bridge within town centre, and softening of channel with berms and marginal planting, to create a naturalised urban river setting
- re-introduction of historic slipway upstream of Cole's Bridge, creating a new public waterside space
- walkway along right bank to provide continuous access and footpath from Twickenham Rough, through town centre to Moormead. Opportunity to integrate with new developments at Brewery Wharf and Twickenham Station



Study area 3: Moormead and Bandy Recreation Ground (known as Moormead Park)
L.B. Richmond upon Thames

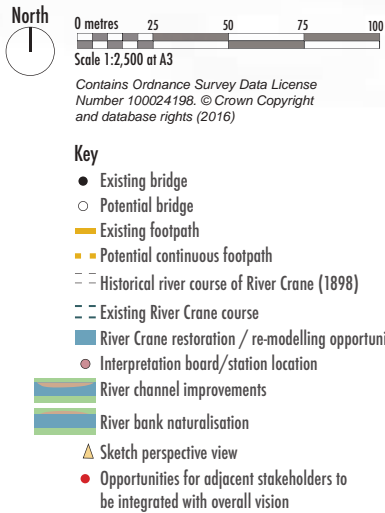
River: *“The river is set free to meander through natural, green banks, rocky beds and lush wetland. Blankets of marginal reeds and plants stretch into the distance.”*
Landscape: *“Parkland and wildflower meadow accompany the winding river along its length. Children play and parents relax, while a riverside path takes you on a journey along its historical course, between the trees.”*

Opportunities:

- significant river and natural landscaping re-modelling and intervention
- existing playing field amenities retained while introducing a new river landscape and natural habitat, wetland and backwaters
- left bank of channel retained but concealed with berms and marginal planting
- river course and right bank opened up and extended into park, creating expansive natural landscape and habitat, complementing the existing function and quality of the park
- widening of river zone and habitat separates park from properties on the left bank. Concrete channel removed but left bank wall retained
- re-positioned playground utilises and complements existing pavilion, as potential café, as well as changing rooms
- playground mixes existing play facilities with natural play, through a natural landscape of tall grasses, meadow and sunken terrain. Allows engagement with adjacent river habitat and nature, through continuation of landscape
- wildflower meadow complements park and adjoining habitat
- continuous riverside path
- additional tree lined path around south side establishes alternative avenue route, with additional trees for screening railway
- new bridge and path alongside Cavendish House Allotments to create route to Cole Park Island and continuation of river path



Vision of Moormead Park from Moormead Bridge with fields and natural river bank



Existing view of vision image for Moormead Park from Moor Mead bridge (above)

Examples of potential opportunities and details



Willow tunnel and interactive landscape for play and exploration



Rocky river edge and wide river beds



Marginal planting and reeds and rushes

Study area 4: Cole Park Island

L.B Hounslow

River: *"Historic Whitton Brook meets River Crane and they combine, to encircle Cole Park Island."*

Landscape: *"Cole Park Allotments and the new orchard pay homage to the market gardening heritage of St Margarets and Isleworth. The island provides a secluded refuge for wildlife and woodland habitat, while walkers pass by along the river's edge."*

Opportunities:

- create a riverside path and bridge across to Cole Park Island
- route allows access through to Northcote Nature Reserve along the tidal River Crane
- allotment boundary fence adjusted to allow riverside path, while retaining allotment plots and their relationship with the river
- pear and apple orchard planted to define picnic area on riverbank, and establish setting of confluence of Whitton Brook and River Crane
- river channel naturalisation along more visible left bank sections at north and south of site
- part naturalisation and backwater within wider section of Cole Park Island, to create marginal and aquatic woodland habitat and fish refuge
- introduce berms and marginal planting and habitat along length of existing channel, reducing width and improving flow
- restore and desilt existing (historic) river channel on east side of Cole Park Island
- gradual naturalisation and softening of river channel where it runs into the natural channel of the tidal River Crane



Vision of Cole Park Island, bridging access and paths and orchards



Existing view of vision image for Cole Park Island and allotment from bridge at A316 (above)



Wildflower meadow and tall grasses



Orchards and picnics



Wild fungi sharing the natural landscape

Conclusions and the way forward

At present, the lower River Crane is a neglected physical asset that for the most part runs unknowingly through the centre of communities within the London Borough of Richmond upon Thames and London Borough of Hounslow.

This document and its vision seek to identify with the potential of this river and its relationship with the natural environment and urban surroundings. It carefully considers context and then captures the imagination. This vision demonstrate the future for the community, where urban living and nature co-exist and flourish within a transformed and uplifting landscape and river environment. It will enrich the daily lives of the people of these local boroughs and beyond.

There are of course challenges, but no technical issues have emerged that make this vision undeliverable. The detail within this vision has evolve from a careful analysis of existing constraints, hurdles and current developments. Much of this is embedded within the substance of these vision images and illustrated study areas. This includes technical issues such as existing infrastructure, sewers and other utilities. It also takes on board ecological systems and existing occupants and stakeholders.



Vision of Moormead Park with meandering river and wide bands of marginal planting, tall grasses and trees, that separate recreation, habitat and river banks

The following appendices demonstrate some of these significant considerations such as improvements to river flow, flood risk management and river ecology. Current planning process and policy are being taken on board, and opportunities identified.

Precedent case studies are being looked at and significant experience and knowledge are being applied. Focused organisations and expert, both local and national, are already committed to, supportive of and contributing to this vision and the process of making it real. These contributors and a summary of the process are indicated towards the end of this document.

Examples of potential opportunities and details



Local running club, enjoying the path



Natural seating



Example of fish passage solution at a high weir



Path, play and planting



Community involvement and river ecology conservation



The Grey Heron, ‘Sentinel of the River Crane’



The seasons at Silverhall Park (LB of Hounslow)

Existing view of vision image for Moormead Park (above)

Appendices : Expertise, Ecology and due process

The Crane Valley Partnership

The Crane Valley Partnership is formed of five London boroughs and public, voluntary and private stakeholders, all working towards a shared vision: for a well-managed and high quality river corridor which is accessible to all, in which wildlife can thrive and local people can take pride and ownership.

Crane Valley Partnership
Mission Statement

To develop a coordinated strategic plan that will raise awareness and support appropriate action for conservation, restoration or new approaches to design and management of the river valley. This strategy will operate across political and geographical boundaries, as part of a regional approach to planning in west London but will also recognise the local issues of each borough.

To use our knowledge, expertise and resources to help partners and communities to work together for a coordinated and sustainable approach to managing and improving the River Crane and its tributaries, to include biodiversity, community cohesion, historical and educational opportunities.

To be the catalyst for improving and protecting the biodiversity of native flora and fauna by contributing to London's Rivers and Streams Habitat Action Plans and working across boundaries to control pernicious weeds and pests, working in conjunction with each of the partnering borough's Biodiversity Action Plans.

To maximise the use of the river corridor as a resource for healthier living and educational activities to improve quality of life for local people. To promote connectivity along the river corridor wherever possible.



Vision of Moormead Park, backwater, marginal and tall grass habitat with intersecting bridges



Existing view of vision image for Moormead Park (above)



River improvements at Crane Park



Opportunities to improve river channel habitat



The water vole and many other species benefit from improved habitat



Interpretation and nature signage and education



Local landmarks and heritage



A network of wildflower meadows to enrich the ecology and community

Ecological Data and Weir Testing

Mereway Weir and Flow Test 2016
(Overseen by Environment Agency)

The lower River Crane often runs dry, because Mereway Weir diverts most of the river's flow along the Duke of Northumberland's River during dry spells. However, the Environment Agency have been investigating whether it will be possible to change the way the weir operates. A test has produced very encouraging results, indicating that it will be possible to allow more water to flow along the lower River Crane. These changes to the weir would only affect how it operates during dry spells, so will not increase the risk of flooding downstream when it rains.

The concrete channel that the lower River Crane flows in was originally installed to reduce the risk of flooding to surrounding properties. Flood risk must always be taken into account when carrying out any improvement work to rivers, and none of the improvements will be allowed to increase the risk of flooding. In fact, the enhancements in the vision will help to reduce flood risk by increasing the overall capacity of the river channel to hold flood water.

Lower River Crane Weir Study: Fish Migration
(Prepared by London Wildlife Trust)

The lower River Crane contains 17 weirs. Many of these structures act as a physical barrier to fish migration, preventing coarse fish and eels from moving into the River Crane from the River Thames and from accessing valuable habitat in the upper catchment. The in-channel improvements proposed in this visioning document will ensure that these barriers are made passable and that the lower river can support healthy fish populations as it once did many decades ago.

Lower River Crane channel below Mereway Weir Before



Lower River Crane channel below Mereway Weir After



Lower River Crane channel adjacent Craneford Way Before



Lower River Crane channel adjacent Craneford Way After



Observation photographs from weir and flow test on lower River Crane - 2016



Precedent case studies of relevant river restoration projects around Greater London and the South of England



Study One ①
Silverhall Park
London Borough of Hounslow
Natural bank and adjacent playground



Study Four ④
Ladywell Fields
London Borough of Lewisham
Full channel restoration



Study Six ⑥
Tokyngton Park
London Borough of Brent
Full river restoration



Study Five ⑤
Sutcliffe Park
Royal Borough of Greenwich
Backwater and wetland landscaping



Study Two ②
River Medina
Isle of Wight
Concrete channel improvements



Study Three ③
Cornmill Gardens
London Borough of Lewisham
Concrete channel removal and marginal planting



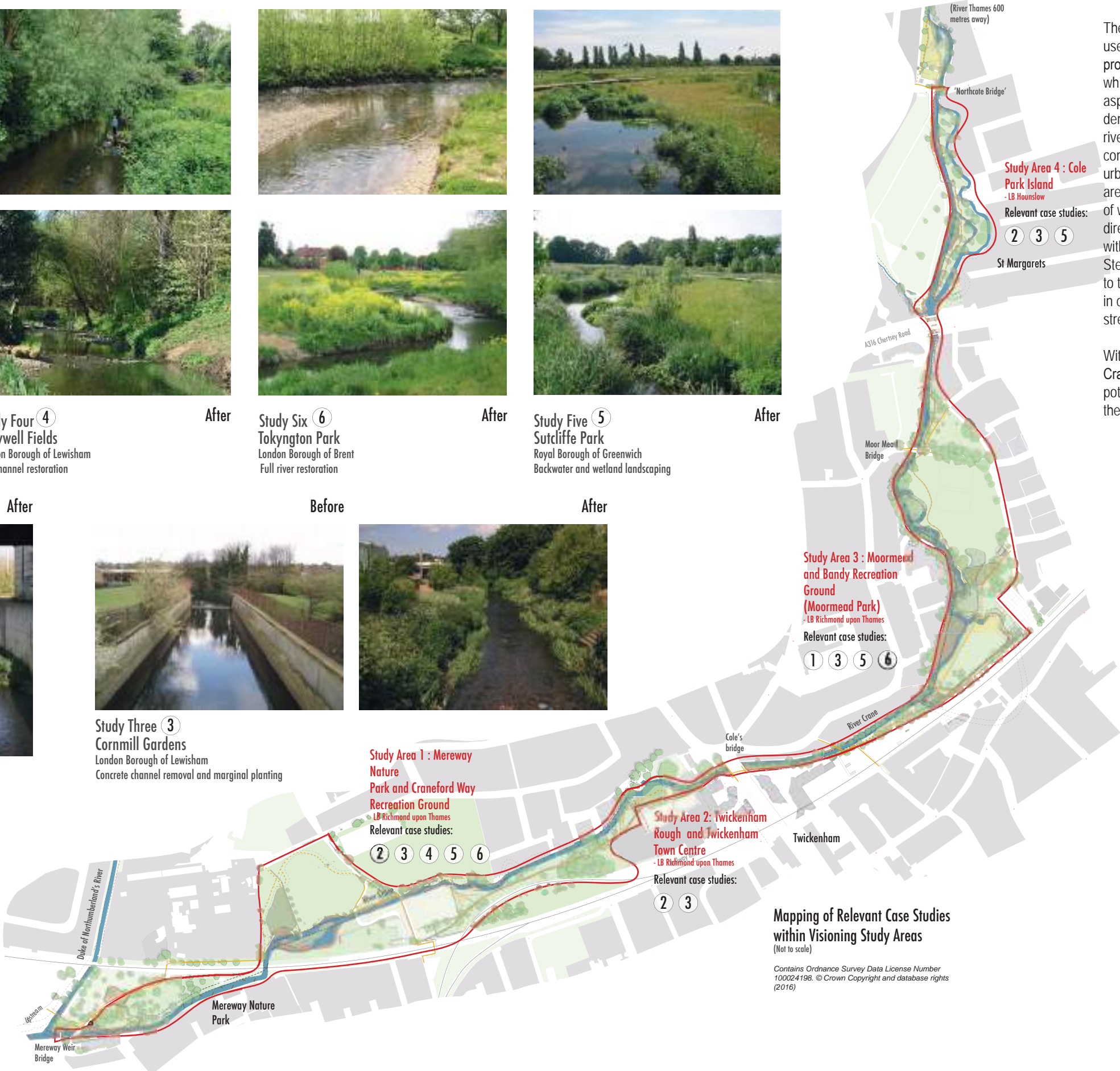
Study Area 1 : Mereway
Nature
Park and Craneford Way
Recreation Ground
LB Richmond upon Thames
Relevant case studies:
② ③ ④ ⑤ ⑥



Study Area 2: Twickenham
Rough and Twickenham
Town Centre
LB Richmond upon Thames
Relevant case studies:
② ③

Study Area 3 : Moormead
and Bandy Recreation
Ground
(Moormead Park)
LB Richmond upon Thames
Relevant case studies:
① ③ ⑤ ⑥

Study Area 4 : Cole
Park Island
LB Hounslow
Relevant case studies:
② ③ ⑤
St Margarets



Precedent Case Studies

These precedent case studies are useful examples of river restoration projects that have characteristics which potentially relate to aspects of the visioning. These demonstrate varying degrees of river improvements, restoration and community engagement, all within an urban context. Most of these locations are within Greater London and some of which are either familiar to or directly worked on by organisations within the lower River Crane Steering Group. This is in addition to the Steering Group involvement in completed works to the upper stretches of the River Crane.

Within the context of the lower River Crane, the adjacent map identifies potentially relevant case studies within the varying parts of the visioning sites.

Policy Context

All London Green Grid

The All London Green Grid (ALGG) policy framework comprises of the London Plan policies on green infrastructure and urban greening – and those relating to open spaces, biodiversity, trees & woodland, and river corridors. The specific objectives of the policy are:

- increase access to open space;
- conserve landscapes and the natural environment and increase access to nature;
- adapt the city to the impacts of climate change;
- make sustainable travel connections and promote cycling and walking;
- encourage healthy living and promote sustainable food growing;
- enhance visitor destinations and boosts the visitor economy; and
- promote green skills and sustainable approaches to design, management and maintenance.

Eleven ALGG Area Frameworks have been produced by ALGG Area Groups. The Crane Valley falls under the ALGG Area 10 framework comprising two cross boundary initiatives: the Colne Valley Regional Park and Crane Valley Partnership.

London Rivers Action Plan

The main aim of the London Rivers Action Plan (LRAP) published in 2009 is to provide a forum for identifying stretches of river that can be brought back to life. This can be done by improving river channel or riparian habitats, by removing or modifying flood defence structures where safe to do so, or by reclaiming 'lost' rivers currently buried under the Capital's surface. The five key aspirations of the plan are to:

- improve flood management using more natural processes;
- reduce the likely negative impacts of climate change;
- reconnect people to the natural environment through urban regeneration;
- gain better access for recreation and improved well-being; and
- enhance habitats for wildlife.

One of the aims of the plan was to restore 15 km of river within the Capital by 2015. This figure was exceeded and 17.7 km of river stretches were restored by the target date. A new target of 25 km by 2020 (using 2008 as a baseline) has been published in the London Plan. This target figure is lower than what was hoped for, but with motivated Catchment Partnerships, this figure will also be exceeded. Other aims of the plan are to:

- support the delivery of the Thames River Basin Management Plan under the Water Framework Directive;
- contribute to sustainable regeneration through the implementation of the Blue Ribbon policies (Chapter 7 of the London Plan);
- contribute to the implementation of the Mayor's access to nature aspirations; and
- support the delivery of the Environment Agency's Thames Catchment Flood Management Plan.

Biodiversity Action Plans

The London Biodiversity Action Plan (BAP) identifies priority habitats that are of particular importance for biodiversity in London. Many of these habitats are covered by Habitat Action Plans (HAPs) and in area-specific BAPs produced by local authorities. The London BAP has 11 HAPs. Most cover just one priority habitat, but others cover several priority habitats e.g. Ponds, Lakes and Canals are all featured in the Standing Water HAP. Partners and developers are encouraged to take action to deliver the habitat targets on their own land and incorporate them in their own BAPs. Greenspace Information for Greater London (GiGL) has produced London Habitat Suitability Maps, which allow areas to be identified where creating and improving habitats would give the best benefit to biodiversity. The lower River Crane was identified as an area to improve to enhance biodiversity and aesthetics.

Water Framework Directive and River Basin Management Plans

The Water Framework Directive (WFD) has been part of UK law since 2003 and introduced a general requirement for ecological protection and a general minimum chemical standard, to cover all surface waters, defined as good ecological status and good chemical status, which should be reached by 2027. The ecological health and chemical status of water bodies are published by the Environment Agency in River Basin Management Plans (RBMP). The second version of the RBMPs was published at the beginning of 2015 after extended consultation. The Thames RBMP provides a long-term framework for managing the issues that affect the quality of the water environment in the Thames river basin district and each catchment also has a page dedicated to priority WFD issues and future aims. One of the aims included is "the lower River Crane Restoration, which includes removal of 2 km of concrete channel in public open spaces downstream of Mereway Road. This will improve fish, invertebrate and macrophyte populations in one water body, with benefits for flood storage, access and recreation, and education".

Catchment Based Approach and Catchment Plans

As part of the management of river basins and catchments in England and the Welsh borders, the Environment Agency and the Department for Environment, Food and Rural Affairs (Defra) have adopted a Catchment Based Approach (CaBA) with over 100 Catchment Partners leading the development and delivery of Catchment Plans.

The Crane Catchment Plan was published in October 2013 and one of the seven main objectives are "a natural looking and functioning river with sustainable flow", pertinent to the lower River Crane. The other six objectives, all of which are relevant, are:

- a river rich and diverse in habitats and native wildlife;
- clean clear water;
- a natural looking and functioning river with sustainable flow;
- reduced risk of flooding in built-up areas;
- collaboration and engagement;
- awareness, access and appreciation; and
- a celebration of the Crane's heritage.

The London Plan and the Blue Ribbon Network

The London Plan (updated version published in March 2016) is the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20 – 25 years (up to 2036).

This Plan provides clear guidance on how improvements to the environment should be undertaken:

- support for an inclusive environment (Policy 7.2);
- greater security through design (Policy 7.3);
- respect for the positive contributions made by local character (Policy 7.4);
- public realm (Policy 7.5); and
- architecture (Policy 7.6).

The Mayor's vision is to transform London's public spaces and create beautifully designed places for everyone throughout the capital and in his manifesto of London's Great Outdoors, he sets out his commitment to champion the improvement of better roads and streets and green public spaces to create places that are fit for a great world city. Policy 7.9 sets out the contributions conservation can make to regeneration and the role of the Blue Ribbon Network in enhancing the townscape (Policies 7.28 – 7.30) are particularly pertinent. The River Crane has been identified as a strategic link within the network.

Policy 2.18 states that development proposals should encourage linkage of green infrastructure including the Blue Ribbon Network, and Policy 7.4 states that Boroughs should consider the different characters of their areas to identify landscapes, buildings and places, including on the Blue Ribbon Network, where that character should be sustained, protected and enhanced through managed change.

Flood Risk Management Plans and Thames Estuary 2100 Plan

Flood Risk Management Plans (FRMPs) explain the risk of flooding from rivers, the sea, surface water, groundwater and reservoirs. FRMPs set out how risk management authorities will work with communities to manage flood and coastal risk over the next six years. Risk management authorities include the Environment Agency, local councils, internal drainage boards, Highways England and lead local flood authorities (LLFAs).

The Crane catchment falls within the London management catchment within the Thames FRMP. The FRMP summarises the risk in the lower Crane catchment: "Where the River Crane joins the River Thames at Isleworth, upstream of the Thames Barrier, the risk of flooding from the river is compounded by tidal flood risk. The Thames Barrier currently provides a certain level of protection to the Crane catchment during storm surges, reducing the risk of tidal flooding. However, if high flows on the River Crane coincide with high tide, tidal water can flow into the River Crane, further increasing the amount of water in the channel and increasing the potential for flooding from the river." This risk will increase with climate change and if there are any future changes to the way that tidal risk is managed.

The Thames Estuary 2100 Plan (TE2100) was developed by the Environment Agency. It recommends how to manage tidal flood risk to the end of the century and beyond. The lower River Crane falls within the Twickenham Policy Unit within the TE2100 Plan. The vision for this policy unit is "to provide flood risk management ... that enhances the landscape and amenity of the area, and involves local communities, businesses and agencies in flood risk management." Specifically for the lower River Crane it sets out that "measures will ... be required for tributary flooding, particularly from the River Crane which has an extensive fluvial floodplain in the fluvial/tidal interaction zone. This will be affected by lack of space for new defences."

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Project Process

The production of this vision sits at the start of a long-term process that can be summarised below:

Stage 1	Formation of Project Team Crane Valley Partnership plus specialist support
Stage 2	Production of Vision Document First step to document aspirations of the partnership groups
Stage 3	Stakeholder Engagement Share vision document and seek feedback from key stakeholder organisations, landowners and community
Stage 4	Feasibility and Initial Design Initial design feasibility, ongoing consultations, costing and procurement strategies
Stage 5	Planning Process Determine planning requirements and submit applications where necessary
Stage 6	Funding Bids Investigate and apply for relevant funding streams
Stage 7	Detailed Design Incorporate stakeholder and community ambitions for sites into detailed plans and costings
Stage 8	Implementation Deliver the vision on the ground in phases over a period of five years

This project has been conceived by the Crane Valley Partnership



with the involvement of representatives of the following organisations

- Environment Agency
- Green Corridor
- London Borough of Richmond upon Thames
- London Borough of Hounslow
- Friends of the River Crane Environment (FORCE)
- London Wildlife Trust
- Friends of Northcote Nature Reserve
- Friends of Moormead
- Friends of Kneller Gardens
- Tidal Crane Association

and funding from the Environment Agency and Thames Water.



Environment Agency



Design Consultancy and Visioning document by
Astronaut Kawada Architecture



Vision of Northcote footbridge, upstream towards Cole Park Island and allotment

“Easing around Northcote Nature Reserve, the River Crane is set free through its final section of rich ecology and tidal cycles. Its waters flow down towards the River Thames, past banks of native plants, while migrating fish make their way upstream...”



Existing view of vision image for Cole Park Island from Northcote footbridge (opposite)