



Cole Valley Catchment Landscape Vision

October 2019



Tame Valley Wetlands



Cole Valley Catchment Landscape Vision

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Introduction



Travelling north from Sarehole Mill

Introduction

Background

The Environment Agency (EA) and the Tame Valley Wetlands Landscape Partnership (TVWLP) identified the potential for the production of a landscape vision and masterplan for the River Cole Catchment in the West Midlands.

The River Cole is situated within a significant area of green infrastructure between East Birmingham, North Solihull and North Warwickshire. The area contains major transport infrastructure with the existing motorway network and future HS2 route passing through the river valley. The Cole Valley also forms part of the Tame Valley Wetlands Nature Improvement Area (NIA) designated in 2017, and the Birmingham and Black Country NIA designated in 2012.

The purpose is to provide a common vision for the future of the river valley which is agreed by stakeholders and can act as an aspirational brochure for investment decisions and improvement in the area. This document sets out that vision and will be used to guide development, assist with engagement, and secure funding for the delivery of blue green infrastructure over the next ten years.

There is the need and potential for concerted action and projects to enhance the connective corridor for wildlife and for key and threatened species that require particular action e.g. water voles, kingfisher, waders, otters, willow and marsh tit and invertebrates. Alongside larger opportunities, there are a range of smaller scale but important projects that will make a difference for a range of species and habitats, enhancing the catchment for wildlife and also for people to experience rich and varied wildlife within this important blue corridor.

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Stakeholder Engagement

To facilitate preparation of a successful and deliverable vision a Project Steering Group was formed with key local stakeholders to inform and shape its development. The Project Steering Group met regularly throughout the development of the vision and consisted of representatives from: Birmingham City Council; Solihull Metropolitan Borough Council; Warwickshire County Council; North Warwickshire Borough Council; West Midlands Combined Authority; Birmingham & Black Country Wildlife Trust; Warwickshire Wildlife Trust; Natural England; and Severn Trent Water.

The project was also represented during a public event held at the Tyseley Energy Park, attended by local community groups, residents and businesses who had the opportunity to discuss the project, share information and suggest opportunities.

This report is just the start of the visioning engagement process and all proposals will need further consultation and detailed design along with securing appropriate funding prior to implementation.



Approach



View along River Cole from pedestrian bridge north of Meriden Park

Approach

As the process of visioning at a catchment level is an emerging process, the approach was developed between Atkins, the Environment Agency and Tame Valley Wetlands Landscape Partnership through reference to previous linear infrastructure and river corridor studies, feedback on successful approaches from project stakeholders and a response to the specific issues associated with the Cole Valley Catchment.

Methodology

The landscape vision has been developed with delivery in mind. The process for delivery is made clear so as not to lose the input and support from the stakeholders in developing the agreed vision. The methodology is outlined below across six broad stages:

- Catchment Overview
- Vision and Strategic Objectives
- Masterplan
- Case Study Site Proposals
- Detailed Design
- Implementation and Management

This document covers the first three stages of the process for the Cole Valley Catchment.

Catchment Overview

An initial mapping exercise was undertaken to inform analysis of the catchment features and designations covering: Topography and Drainage; Landscape and Ecology; Heritage; Accessibility; Local Context; Built Form; Tranquillity; and Dark Skies.

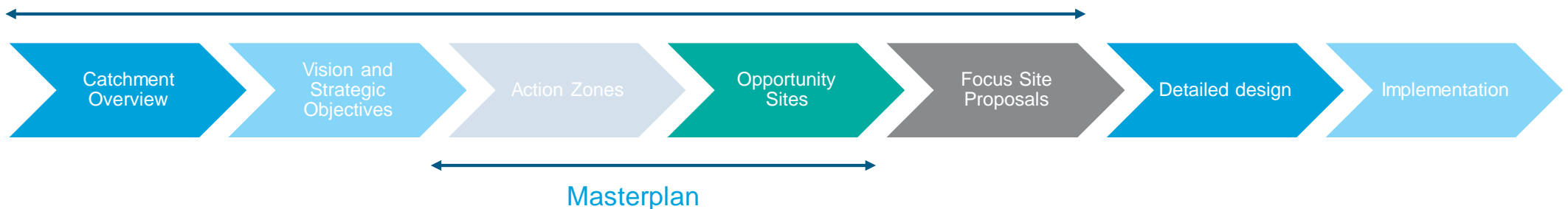
A broad literature and policy review was undertaken covering: Local Planning Policy; Environment Agency data; and other Local Plans, Neighbourhood Plans and initiatives.

Following completion of the desk-study exercises, a site visit was undertaken along the length of the River Cole through the catchment to ground-truth findings and understand the nature of specific features and areas along the river.

Vision and Strategic Objectives

At the first Steering Group meeting all stakeholders were invited to share their thoughts on what the Cole Valley Catchment meant to them and how the landscape vision could help to support their organisations own vision and objectives. This feedback was collated and reviewed alongside the findings of the mapping and literature review to identify correlation and synergies between them.

Scope of Document



Approach

A draft vision and strategic objectives were presented to a subsequent Steering Group meeting and comments sought from all stakeholders and discussed. Once agreed, all stakeholders co-signed a copy of the vision and objectives to demonstrate their shared commitment to supporting the ongoing delivery of the Vision and Strategic Objectives.

Masterplan

Due to the varied nature of the catchment the needs and approach required to achieve the vision and strategic objectives would be different depending on the location. To communicate and manage this variation the masterplan has been developed in two stages: Action Zones; and Opportunity Sites.

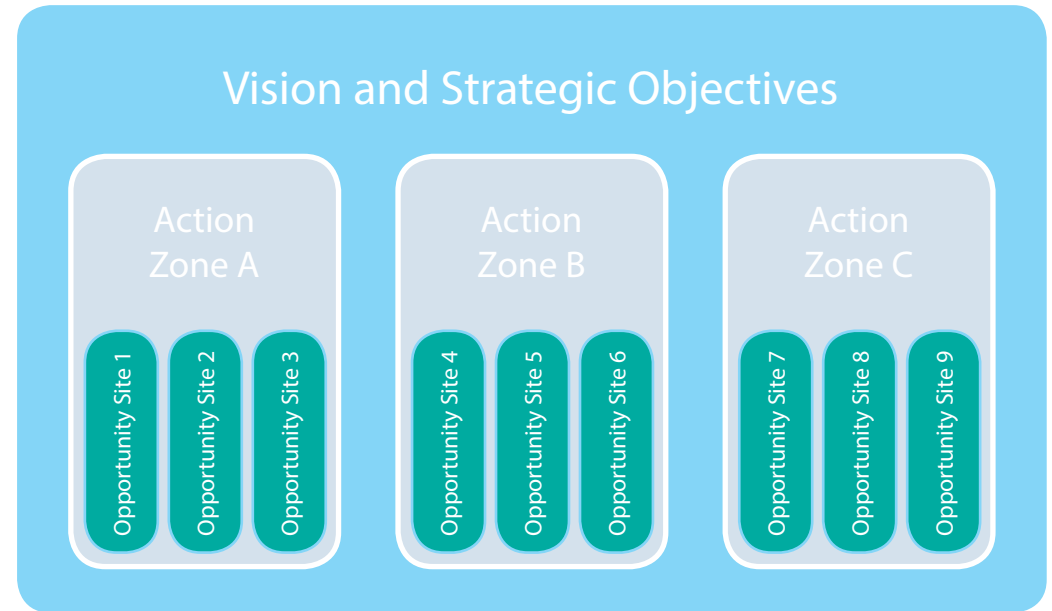
Action Zones are broad areas that have a similar character, condition, issues and opportunities. Opportunity Sites are defined parcels of land, lengths of river or specific points of the catchment around the River Cole within which a project or groups of projects could be delivered.

For each Opportunity Site specific details are captured to define: A brief description of identified opportunities; Lead Stakeholder; Primary Objective; Capital Cost; Operational Cost; Ease of Delivery; and Time Horizon.

Case Study Sites

Successful delivery of the agreed Vision, Strategic Objectives and Masterplan relies upon the correct interpretation of those aspects of the project. To demonstrate how this can be achieved, and undertake engagement with stakeholders on quick win projects, three Case Study Sites were agreed with the Steering Group, one for each of the local authority areas. Case Study Sites covered multiple Opportunity Sites and demonstrate delivery approaches through preparation of concept designs and indicative costings.

Illustration of the relationship between Vision and Strategic Objectives, Action Zones and Opportunity Sites:



Catchment Overview



River Cole to the east of Ackers Adventure

Catchment Overview

Extent

The Cole Valley is located across three local authority areas covering Birmingham, Solihull and North Warwickshire. The River Cole is 34 km in length, it is part of the Tame Lower Rivers and Lakes Operational Catchment, Tame Anker and Mease Management Catchment and Humber River Basin.

This study focuses on the lower 24 km of the river, specifically the two waterbodies (illustrated on the plan on the following page): Cole from Springfield to Hatchford-Kingshurst Brook; and Cole from Hatchford-Kingshurst Brook to R Blythe. For the purposes of the landscape vision, the two waterbodies are considered together to form a single study area. A summary of each catchment from data on the EA Catchment Data Explorer is provided below.

Cole from Springfield to Hatchford-Kingshurst Brook:

Id: GB104028042502

Type: River

Hydromorphological designation: Not designated artificial or heavily modified

NGR: SP1263387762

Catchment area: 3,499.14 ha

Length: 14.988 km

Surveillance Water Body: No

Catchment area: 34.991 km²

Cycle 2 Overall (2016): Poor (Ecology - Poor, Chemical - Good)

Cole from Hatchford-Kingshurst Brook to R Blythe:

Id: GB104028042420

Type: River

Hydromorphological designation: Heavily modified

NGR: SP1902089066

Catchment area: 1,083.38 ha

Length: 8.307 km

Surveillance Water Body: No

Catchment area: 10.834 km²

Cycle 2 Overall (2016): Moderate (Ecology - Moderate, Chemical - Good)

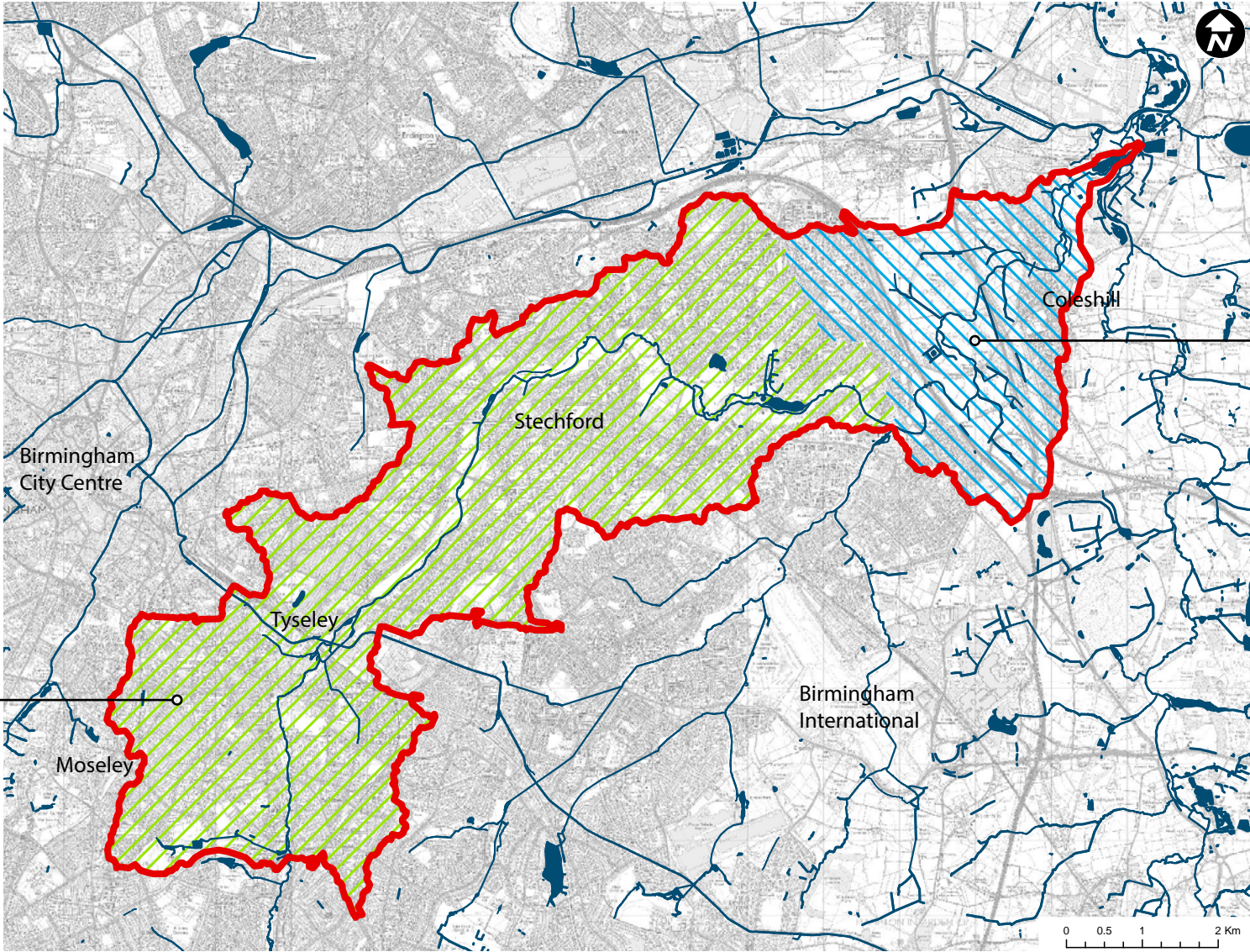


View south from A34 Stratford Road bridge



River bank at Cole End Park

Catchment Overview



Cole from Springfield to Hatchford-Kingshurst Brook

Cole from Hatchford-Kingshurst Brook to R Blythe



Catchment Overview

Environmental and Social Context

Desk-top analysis and research of the environmental context of the catchment has been undertaken and is summarised below, associated baseline mapping is provided in Appendix A.

Topography and Drainage

The topography of the catchment varies in height from a high point of around 165m AOD at Moseley in the south-west to a low point of 74m AOD outside Coleshill in the north-east. The nature of landform within the catchment varies from a shallow valley in the western half to a more open and flatter landscape in the eastern half.

A number of historic landfill sites are situated in close proximity to the River Cole throughout the catchment. These create some unnatural landforms at a local scale but also present a constraint and risk to future opportunities within the area.

At the western end of the catchment the river is relatively straight with gentle meanders and a mix of culverted and hard-edged sections. East of Stechford the river banks are generally soft and meanders become more pronounced. The Grand Union Canal passes east-west through the southern half of the catchment and passes over the River Cole just north of Tyseley. The River Rea and River Tame run parallel to the River Cole to the north and west of the catchment.

There are a small number of tributaries along the length of the river, most notably the Hatchford-Kingshurst Brook which joins from the south at Meriden Park. Mill ponds and lakes are a feature of the catchment, associated with a group of around 60 mills that used to exist along the River Cole and River Rea, including Babbs Mill and Sarehole Mill.

Flood Zones 2 and 3 are present throughout the length of the catchment. Flooding of residential properties and businesses is a particular issue around Sparkhill, with flooding occurring most recently in May 2018.

Landscape and Ecology

The catchment is located within National Character Area 97, Arden, which comprises farmland and former wood-pasture lying to the south and east of Birmingham, including part of the West Midlands conurbation. Traditionally regarded as the land lying between the

River Tame and the River Avon in Warwickshire, the Arden landscape also extends into north Worcestershire to abut the Severn and Avon Vales. To the north and northeast it drops down to the open landscape of the Mease/Sence Lowlands.

The Natural England Area Profile includes settlement and development as a pressure for landscape change, where growth proposals seem to be focussed around the east of Birmingham and north Solihull. Identified opportunities include:

- The creation of new networks of woodlands, heathlands and green infrastructure, linking urban areas like Birmingham and Coventry with the wider countryside to increase biodiversity, recreation and the potential for biomass and the regulation of climate.
- Enhance the value of Arden's aquatic features such as the characteristic river valleys, meadows and standing water areas to increase resource protection, such as soil erosion, soil quality and water quality.

The catchment includes two Nature Improvement Areas (NIAs). The Birmingham and Black Country NIA aims "To achieve long-term environmental gains for the wildlife and people of Birmingham & the Black Country by delivering targeted, on-the-ground, biodiversity projects at a landscape scale." The Tame Valley Wetlands NIA has a wide variety of habitats that host a rich diversity of wildlife and rare species. Home to several of the most important wildlife sites in the Midlands, this regionally important river corridor is also a vital north-south migration route, providing essential resting and feeding places for hundreds of migrating birds.

A variety of landscape and environmental features and designations are present within the catchment, including: Site of Special Scientific Interest; Traditional Orchard; Open Mosaic Habitat; Coastal and floodplain grazing marsh; Doorstep Green; Millennium Green; and Low-density Shrubs/Young Trees, Deciduous Woodland, Mixed Woodland and Evergreen Woodland.

Due to the urban nature of much of the catchment, these are generally situated in close proximity to the river itself, and are not widespread in areas beyond. This dynamic places local importance and value on those features in provision of habitat and ecosystem services that are locally rare. The position of the features along the river is often disparate, resulting in the river being the notable link and connection between them.



Catchment Overview

Heritage

The catchment contains a range of heritage features as well as a diverse social and development context.

Within the catchment there is a broad distribution of: Grade I, II* and II Listed Buildings; a Registered Park & Garden; Scheduled Monuments; Ancient and Semi-Natural Woodland; Planted Ancient Woodland Sites; Woodpasture and Parkland; and Conservation Areas.

Whilst distributed throughout the catchment, few designated heritage features are situated in the immediate vicinity of the river itself - primarily some isolated listed buildings and the Coleshill Conservation Area.

Accessibility

There are a diverse range of accessible spaces and routes within and around the catchment including: Sustrans National Cycle Route 53; Local Nature Reserves; Kingfisher Country Park; Public Rights of Way; Common Land; CRoW Access Land; CRoW S15 Land; and a range of public open spaces (Allotment/Growing Space, Sports Pitches, Play Spaces and Public Parks).

Open spaces within the catchment are focused on the river corridor but are also scattered around the wider area. Along the River Cole, there are large sections of connected and accessible open space, however there are some notable gaps in connectivity and access around Tyseley and east of the M6.

Local Connectivity

The local connectivity through the catchment is primarily facilitated by the local road network. However, there are major road corridors in the form of the M42, M6, A34, A41, A45, A4040 and A446. There are two railway corridors passing through the catchment, from Birmingham to Solihull and Birmingham International respectively. Stations within the catchment include Stechford, Lea Hall, Small Heath, Tyseley, Spring Road and Hall Green. The proposed HS2 alignment would also pass through the catchment towards the eastern end. These major transport corridors tend to cross the River Cole rather than run parallel to it. Due to the built-up nature of the area the majority of the transport corridors exert little influence on the overall character of the catchment, particularly west of the M6, however they do provide some barriers to connectivity along the river corridor. The Midlands Metro East Birmingham to Solihull extension will also create new connectivity across the Catchment.

Local Facilities and Built Form

Within close proximity to the river are a high number of local centres, providing ease of connectivity between the corridor and shops/businesses.

The pattern of urban form within the catchment is predominantly small scale residential streets and properties. Exceptions include larger scale and footprint buildings around Tyseley, Stechford and Lea Hall associated with industrial and business uses.

The catchment is broadly urban in nature but there are notable open spaces around the River Cole itself and towards the eastern extent beyond the M6.

Tranquillity and Night Lights

The Campaign to Protect Rural England tranquillity mapping illustrates that the majority of the catchment is located within areas of relatively low tranquillity. Notably, the mapping illustrates pockets of elevated tranquillity immediately around the River Cole heading eastwards from Stechford.

Due to the urban nature of the catchment, night light mapping illustrates that the majority of the catchment is affected by light pollution. Whilst that is the case at a strategic level, the majority of spaces and paths immediately around the river corridor itself are not lit.

Index of Multiple Deprivation

The mapping shows that the majority of the catchment has relatively increased levels of deprivation than the wider area. The upper and lower ends of the catchment have relatively low levels of deprivation. Immediately outside the catchment there are notable locations of relatively low deprivation, including at Sparkbrook, Garretts Green and Chelmsley Wood.



Catchment Overview

History of the River Cole

The River Cole bears one of the oldest names in Birmingham. Many rivers retained their Celtic names after the arrival of the Anglo-Saxons, and this one refers to 'hazel trees'.



1st-2nd Century AD
Evidence for a Roman-Celtic temple, industrial areas (including smithing) and settlement have been excavated at Grimstock Hill, north of Coleshill in Warwickshire. This settlement sat at the boundary between two powerful Iron Age tribes (the Coritanni in the east and the Cornovii in the west).



1086
At Domesday, William the Conqueror held the manor of Coleshill; a market charter was granted to Coleshill in 1207 highlighting its importance as a regional centre.

1496
Simon Digby was awarded the manor of Coleshill by King Henry VII following the Battle of Bosworth.



Mid 16th century
Now a scheduled monument, Coleshill bridge was built over the River Cole. It was later widened for road traffic.



1600-1649-
It is said that in the first part of the 17th century Charles I fished in the River Cole off the Birmingham Road.

1745
Coventry Road turnpike set out, where a tollgate stood at the River Cole crossing.



1756
Matthew Boulton, one of the pioneers of the industrial revolution and leading figure of the Lunar Society, leased Sarehole Mill and used it as a 'flating mill', producing sheet metal used for button manufacturing.



1850s
Sarehole Mill, a Grade II listed water mill has a steam engine and chimney built which provides it with its distinctive silhouette. There previously was a mill on this site since 1542.



1966
Tolkien describes Sarehole Mill, which he lived close too at the turn of the century. It is said the mill and surrounding area provided much inspiration for 'Lord Of The Rings'.

'It was a kind of lost paradise... There was an old mill that really did grind corn with two millers, a great big pond with swans on it, a sandpit, a wonderful dell with flowers, a few old-fashioned village houses and, further away, a stream with another mill. I always knew it would go – and it did.'



1977
Babbs Mill Park was created in 1977 to commemorate the Silver Jubilee of HM Queen Elizabeth II. Complete with the River Cole and Babbs Mill Lake it is recognised as a Local Nature Reserve.

1989
M42 completed with a bridge over the River Cole.

2003
Junction 7a of the M6 was opened, which runs over the River Cole



Catchment Overview

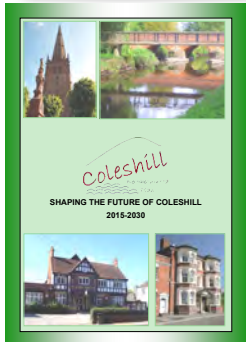
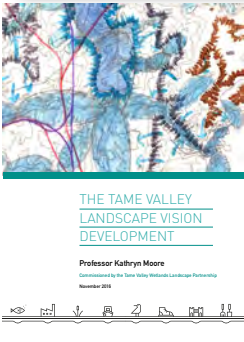
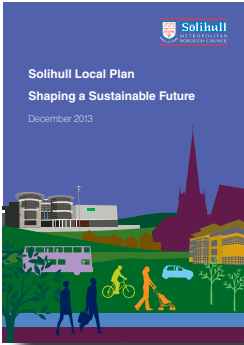
Policy and Development Context

The Cole Valley Catchment Landscape Vision will be delivered within the context of existing Local Plans and initiatives across Birmingham, Solihull and Warwickshire. Delivery of the Vision aligns with and supports wide-ranging and cross-boundary aspirations covering sustainable travel, access to green spaces, health and wellbeing, green infrastructure, biodiversity, climate change and heritage.

Whilst the policy documentation is clear on local aspirations, it is not always clear how they will be achieved. This Vision document aims to provide the interpretation of broad policy aspirations in a specific manner for the Cole Valley Catchment to enable successful delivery of policy.

Requirements for housing within the West Midlands, and the potential for development in the eastern end of the catchment following delivery of HS2, will result in future pressure on green and open spaces within the catchment to be allocated for development. This Vision aims to protect the river corridor for future generations whilst enhancing it in ways that will benefit existing and future populations around it.

The corridor provides an opportunity to inform future development but also a location for future development sites to provide and deliver environmental enhancements beyond their red line boundary and deliver ecosystem services locally and regionally.



Vision and Strategic Objectives



View from within Cole End Park

Vision and Strategic Objectives

Vision

Driving cultural interest to create a valued and multi-functional green corridor within the River Cole catchment that acts as a catalyst for future change and investment.

Biodiversity, water quality and flood resilience enhancements will provide an inspiring environment to protect the area for future generations, whilst creating opportunities for access to nature, appreciation of cultural heritage and healthy communities that are proud of their River.



Vision and Strategic Objectives

Strategic Objectives

Create a high quality blue/green corridor along the River Cole through East Birmingham, North Solihull and North Warwickshire that can be used as an alternative travel route for local or commuting journeys without the car.

Enhance the natural and historic environment, improve biodiversity and water quality, reduce flood risk and highlight the opportunities for natural capital and environmental net gain.

Re-connect local communities and businesses with their local public open space, help them value what the River provides for them, improving wellbeing and resilience through social prescribing and identifying links between behavioural change and flooding/environmental improvements.

Stimulate partnership working across multiple stakeholders to coordinate approaches to catchment-wide issues, deliver local policy aspirations and unlock multiple funding opportunities.



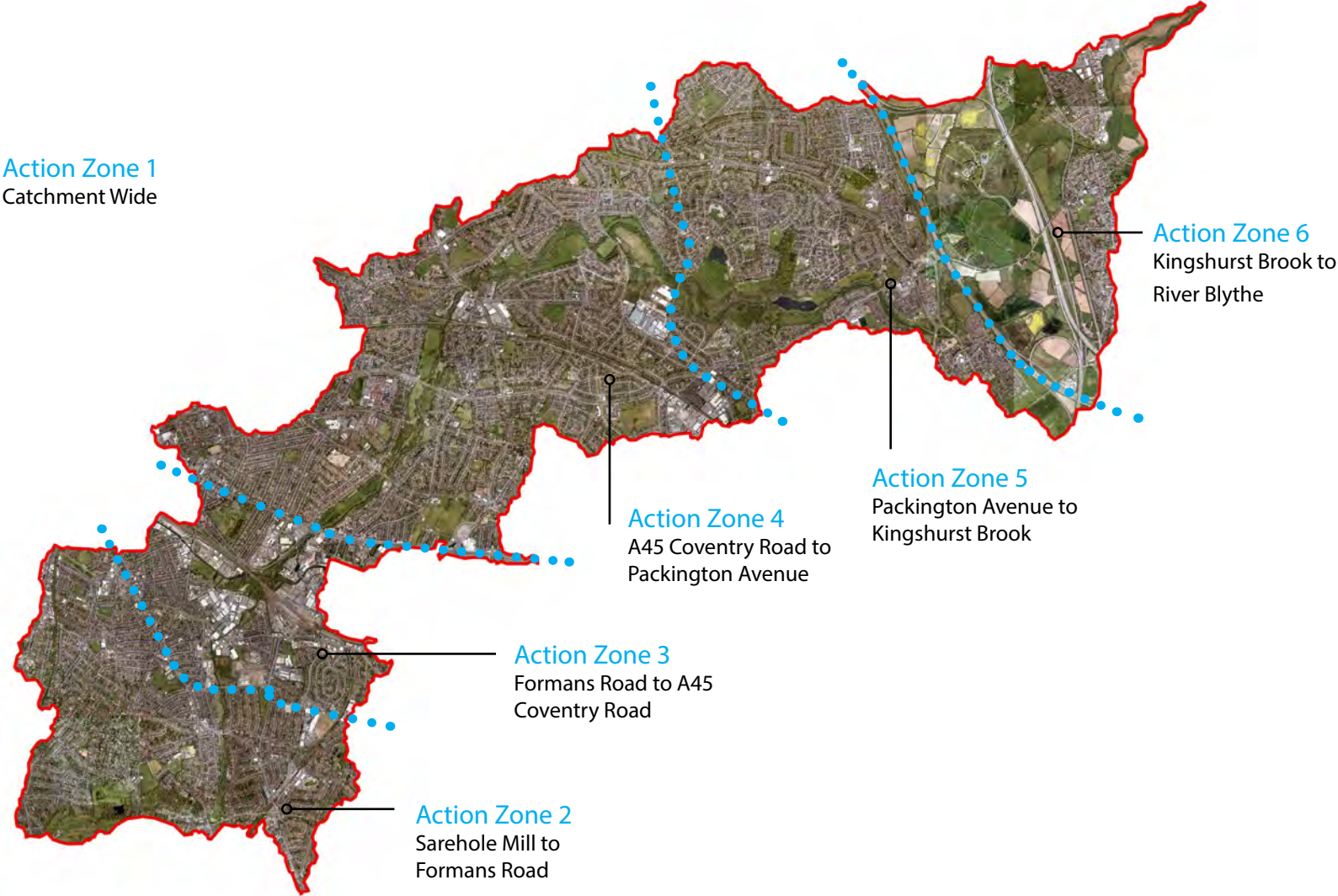
Action Zones



View north from Formans Road bridge

Action Zones

Six Action Zones have been identified across the catchment, an overview of the context, issues and opportunities for each is provided below and across the following pages.



Action Zones

Action Zone 1: Catchment Wide

This Action Zone is different to other Action Zones in that it covers the whole of the Cole Valley Catchment area. It has been created to capture masterplan-level opportunities that would apply equally across the catchment as a whole, rather than within a specific Action Zone.

Invasive Species: A range of invasive species are present throughout the catchment, particularly Japanese knotweed and Himalayan balsam. Whilst individual areas can be treated and removed, the problem is best approached on a catchment-wide basis to reduce the risk of recolonisation along the watercourse as a result of remaining plants. Some biocontrol measures are being trialled in a number of locations within the catchment, including around Tyseley and Coleshill. Should these trials be successful they could be delivered more extensively. The lead organisation for this initiative would be the Environment Agency.

Misconnections: Pollution from drainage misconnections can also kill plants and fish, create foul smells and is often visually unpleasant. It can also pose a risk to the health of the community, particularly children and animals. There are notable instances along the River Cole where misconnections are present, fixing and preventing these will facilitate wider improvements in the amenity, water quality and biodiversity of the area and ensure other initiatives can be successful. Water pollution from drains and sewers can be reduced by:

- Raising awareness and understanding about misconnections, sewers and drains and the environmental problems that they cause.
- Helping property owners and professionals to check drainage connections and take action.
- Ensuring new drainage is connected properly.
- Helping to develop and support effective practice, policy and regulation.
- Sharing information and evidence about the problem and supporting research and development of long term solutions.

The lead organisation for this initiative would be Severn Trent Water, further information on misconnections can be found at www.connectright.org.uk.

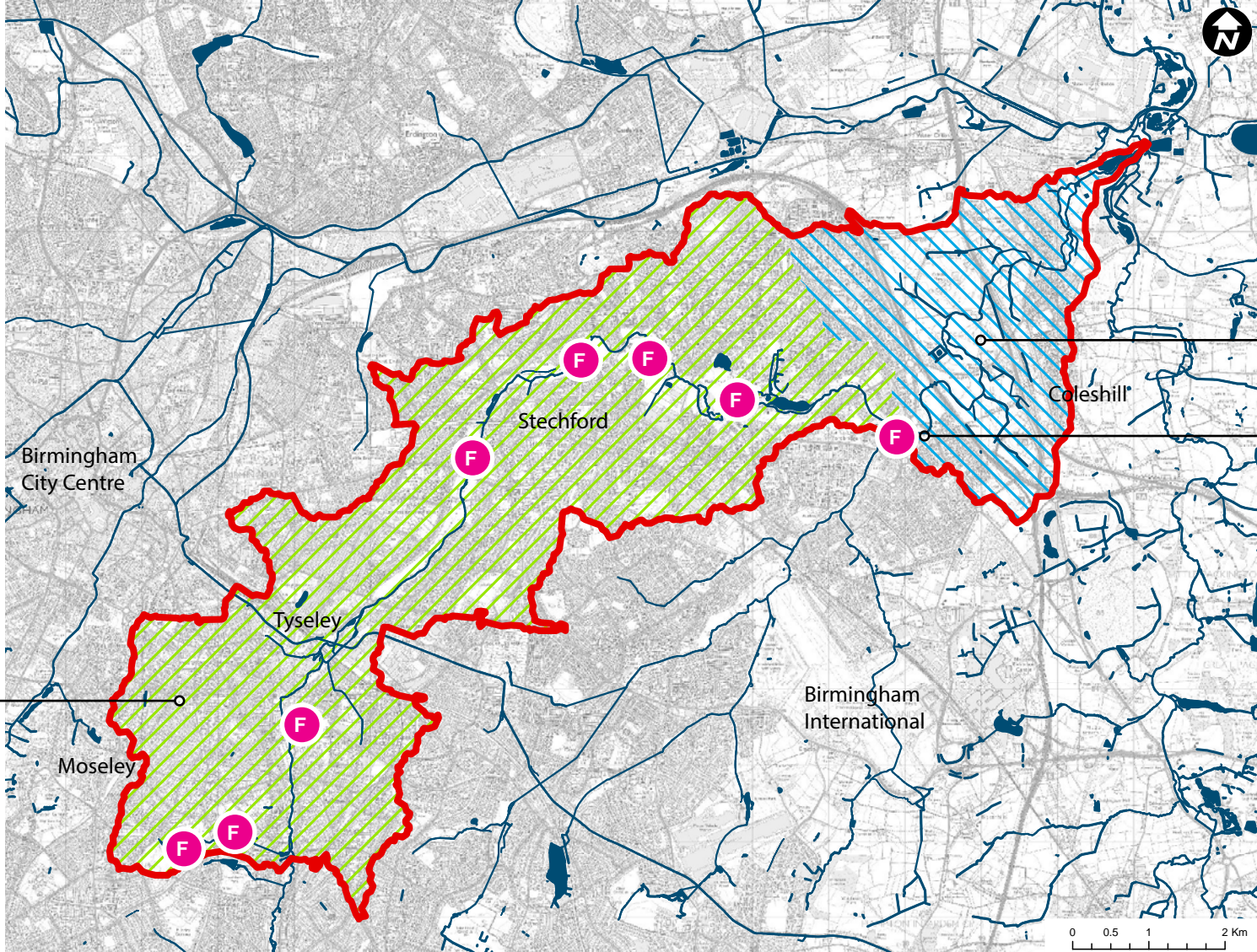
Flood Storage Areas (FSAs): FSAs are natural or man-made areas that temporarily fill with water during periods of high river level, retaining a volume of water which is released back in to the watercourse after the peak river flows have passed. Enhancing the biodiversity value and other benefits of FSAs can be achieved if considered into the design process for new FSAs. An Environment Agency study has identified that there could be up to 10 broad areas suitable for the creation of FSAs within the catchment. Whilst the lead stakeholder for implementation of FSAs would be the Environment Agency, opportunities for delivery and inclusion of FSAs within other projects should be considered by all stakeholders.

Sustainable Drainage Retrofit: Sustainable drainage mimics natural drainage, infiltrating and attenuating runoff and pollutants at source, slowing down and removing pollutants along pathways, and limiting the effect on receptors. As well as dealing with everyday run-off, they can be designed to help manage more extreme weather events. They can also be made more flexible and adaptable to the potential effects of climate change and urbanisation while providing other multi-functional benefits such as visual amenity and biodiversity. Opportunities to retrofit sustainable drainage within the catchment should be explored to help alleviate local surface water flooding and deliver on the Cole Valley Catchment Vision and Strategic Objectives, particularly in locations away from the immediate river environment. The lead organisation for this initiative would be the Lead Local Flood Authority with support from Severn Trent Water where appropriate.



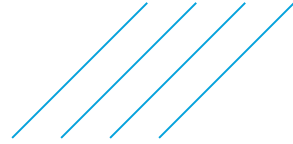
Japanese knotweed on the opposite bank to Knowle Road Allotments

Action Zones



Cole from Hatchford-Kingshurst Brook to R Blythe
Potential FSA locations

Cole from Springfield to Hatchford-Kingshurst Brook



Action Zones

Branding and Identity: The signage, materials and street furniture along the length of the River Cole varies as a result of implementation by multiple stakeholders, incremental change over time and the lack of a catchment-wide approach. If the Vision and Strategic Objectives are to be achieved then a consistent approach to branding and identity would help to realise that and help to make the connections along the length. A branding exercise should be undertaken for the Cole Valley alongside development of a design guide covering signage, materials and street furniture for both general and key locations. This would need to be implemented by all but it is suggested that either the West Midlands Combined Authority or Environment Agency take a lead on production of this (as organisations with an interest across the whole catchment) to be adopted by all organisations working in and around the River Cole.

Friends Groups: A number of small and emerging Friends Groups exist within the catchment, however they need support from others to facilitate wider engagement of the community, share resources and knowledge across groups, and have a plan of activities that they can undertake directly related to achieving the Vision and Strategic Objectives. The 'Love Your River' campaign is backed by Defra, the National Trust, the Environment Agency, the Wildlife Trusts, Keep Britain Tidy, water companies and Waterwise, to promote the value and benefits of our rivers to our everyday life. A Love Your River group for the River Cole would help to achieve this and would be led by the Wildlife Trusts.

Ranger Service: Due to the lack of maintenance budgets available to local authority teams, they are limited in how much work they can undertake within the catchment, mainly for grass cutting, urgent safety or essential maintenance tasks only. A number of benefits could be achieved across the catchment through a more strategic approach to management of the existing landscape and habitats along the River Cole. A dedicated ranger service for the River Cole would enable this to take place and realise some of the latent opportunities that already exist within the catchment and do not require capital expenditure. The presence of a visible ranger service could also assist with reducing littering, vandalism and anti-social behaviour. As this initiative crosses multiple local authority areas, the lead stakeholder would be the West Midlands Combined Authority.



Functional and damaged signage



Wayfinding from Grand Union Canal

Action Zones

Action Zone 2: Sarehole Mill to Formans Road

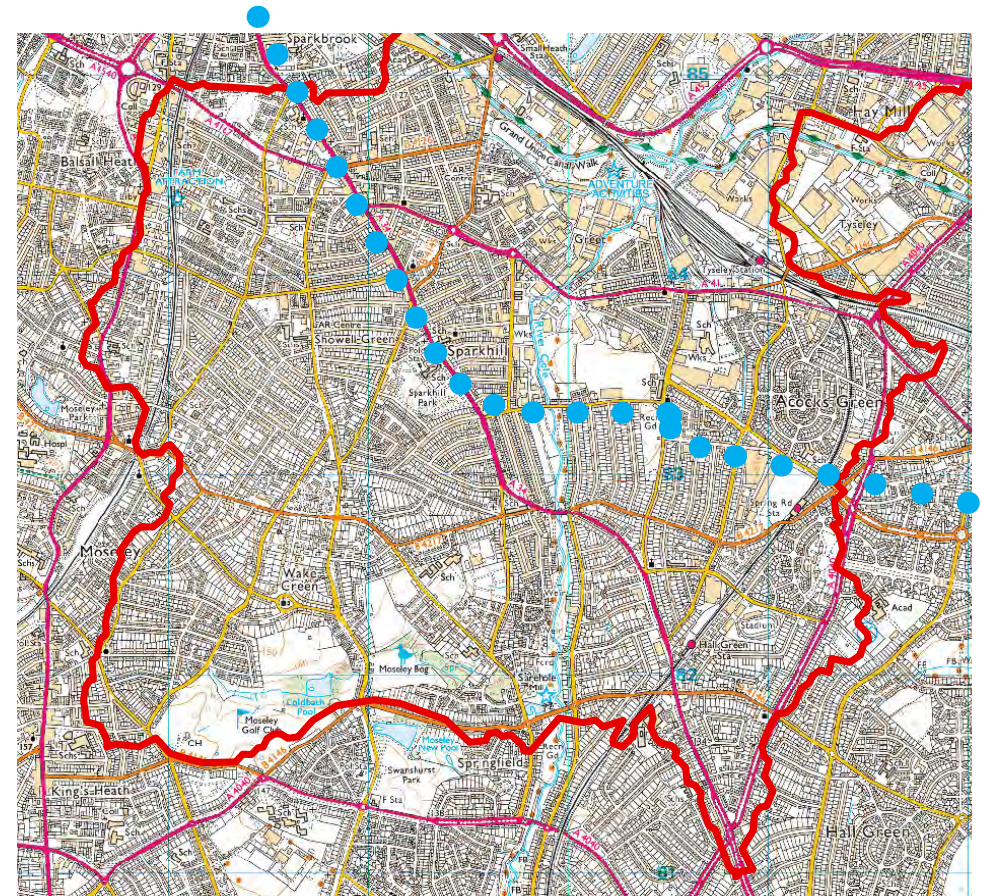
This Action Zone has a clear heritage focus through the presence of Sarehole Mill with its associated built environment and cultural influence. The Mill is a place that acts as a destination to users of the River Cole and includes a car park, maps and accessible surface routes. The area is generally of wooded character around the River Cole providing a sense of enclosure and separation from the surrounding urban context. Access alongside the River Cole is primarily on the western bank.

Issues that are specific or particularly relevant to this Action Zone are described below:

- Presence of weirs that result in negative impacts for habitats (primarily for fish), sediment transfer and flooding.
- A number of engineered river banks and retaining walls resulting in little marginal habitat and fast-flowing water in places.
- Minor instances of vandalism to the northern end impacting on perception and potential use by the wider community.
- A break in the visual and physical connectivity to the river for people at the crossing of the A34 Stratford Road.

Opportunities that are specific or particularly relevant to this Action Zone are described below:

- Use of weir as stepping stones into a more natural environment alongside the river.
- River enhancements to remove engineered features, improve habitat management and incorporate in-channel improvements.
- Provision of a crossing point and improved entrance features/spaces to the river corridor on either side of the A34 Stratford Road.
- Promotion and enhancement of the Green Road ford as a hidden gem of a more rural context within the surrounding urban area.



Action Zones

Action Zone 2: Sarehole Mill to Formans Road



Information panel at Sarehole Mill



Travelling north from Sarehole Mill



The River Cole east of Sarehole Mill



Ford at Green Road



Weir north of Green Road



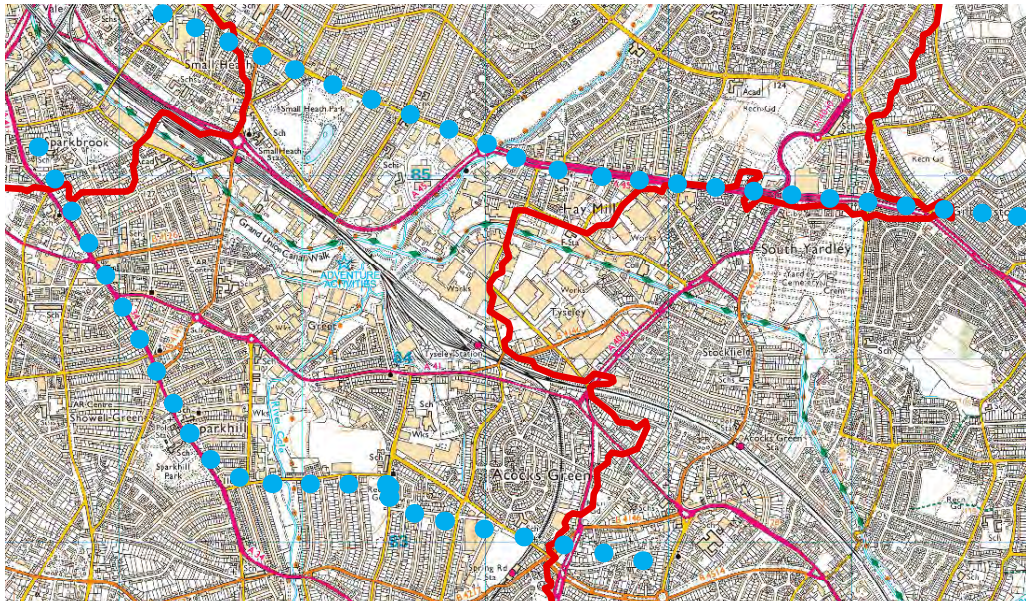
Access to River Cole from A34 Stratford Road



Action Zones

Action Zone 3: Formans Road to A45 Coventry Road

Formans Road marks the start of 'main river' and Environment Agency responsibility. The character of the catchment becomes more industrial in nature as the river passes through Tyseley. The nature of the river itself varies from high retaining walls and culverted sections to high and steep wooded banks. There is evidence of previous industrial use at the Burbury Brickworks which is now a Local Nature Reserve as well as ongoing industry and employment in large scale buildings and warehouses. The area includes Tyseley Energy Park which aims to help shape the way the City of Birmingham develops infrastructure for renewable heat and power, energy storage, clean transport fuels in combination with advanced waste processing. The Grand Union Canal passes over the River Cole in this Action Zone which also includes Ackers Adventure, a charity that provides access to adventure activities for the local community and others.



Issues that are specific or particularly relevant to this Action Zone are described below:

- Weirs near Ackers Adventure result in negative impacts for habitats (primarily for fish), sediment transfer and flooding.
- Pollution from tributaries and adjacent industrial areas.
- Littering and dumping of waste within and around the river.
- The river is hidden from view in many areas limiting the potential for sense of place.
- There is only stepped access between the Grand Union Canal and the River Cole in a southerly direction from the Canal.
- A section of the river either side of the A41 Warwick Road is inaccessible.

Opportunities that are specific or particularly relevant to this Action Zone are described below:

- The river corridor can provide a green oasis within a grey context, it has been referred to as 'The Lost World'.
- Improve the connections and interfaces between the canal and the river to improve accessibility and wider pedestrian connectivity.
- Encourage business investment and stewardship in the river environment for the benefit of employees as well as their own climate change or social responsibility agendas.
- Provide surfaced routes in sections of the path network which limit accessibility during wet weather, for those on bikes, less steady on their feet, with pushchairs or in wheelchairs.
- River enhancements to remove engineered features, improve habitat management and incorporate in-channel improvements.

Action Zones

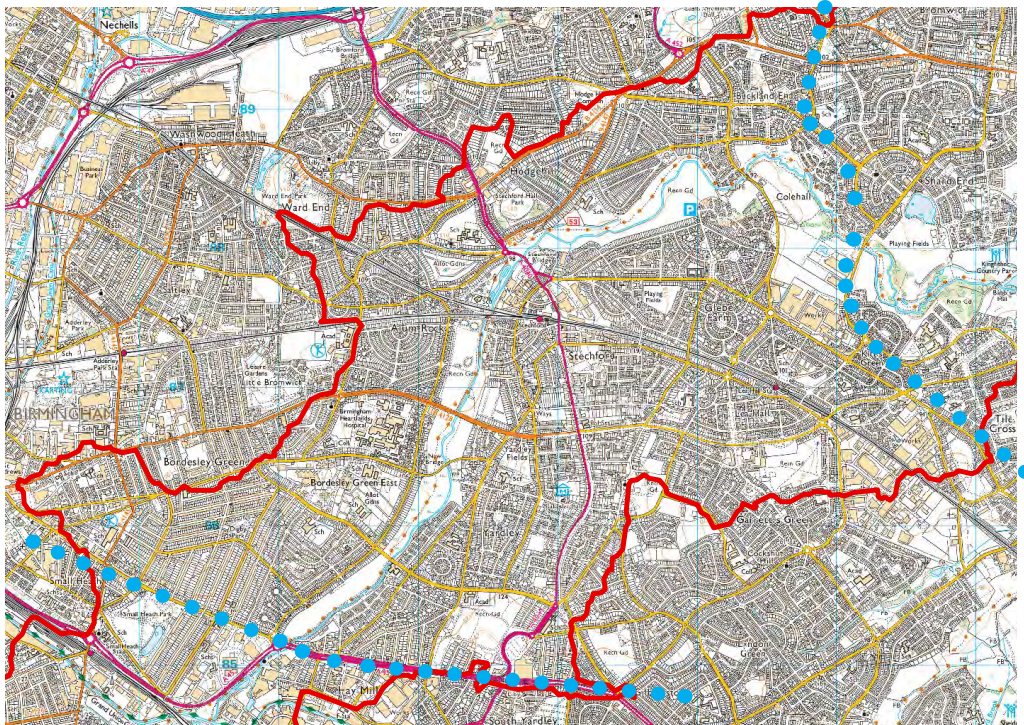
Action Zone 3: Formans Road to A45 Coventry Road



Action Zones

Action Zone 4: A45 Coventry Road to Packington Avenue

This area is characterised by large open green spaces around the River Cole with extensive residential areas beyond, often overlooking the space. There are some areas of vegetation along the river, though they limit direct views of the watercourse, with the surrounding open green spaces providing spaces for sports pitches and some areas of rough grassland. In comparison to the Action Zones further south, the area feels more naturalistic and the river begins to meander noticeably. Birmingham Heartlands Hospital and The Richmond Primary Care Medical Centre are situated in close proximity to the river to the west and east respectively. There are also a number of schools near to the river, including Starbank School, St Bernadette's Catholic Primary School, Waverley School, Blakesley Hall Primary School, Stechford Primary School and Colebourne Primary School.



Issues that are specific or particularly relevant to this Action Zone are described below:

- A notable presence of littering and fly tipping throughout the area with some instances of graffiti or vandalism.
- Planting blocks have gone unmanaged and are not reaching their potential habitat/aesthetic value.
- Lack of easily accessible connection along the river corridor past the railway line north of Bordesley Green Recreation Ground.
- When not being used for sporting activities the spaces can feel open, exposed and uninviting.
- Whilst the large open space has a lot of potential, it can feel hidden in some areas behind incidental access points off residential streets.

Opportunities that are specific or particularly relevant to this Action Zone are described below:

- Encourage community engagement and sense of ownership to reduce anti-social behaviour and encourage local maintenance such as litter picks.
- Provide outdoor lessons, education, after school activities and safe walking routes for local schools and their pupils.
- Facilitate use of the area for access to green space associated with health and wellbeing benefits such as health walks and social prescribing, working with local Hospitals and Medical Centres.
- Improve circular connectivity of accessible routes through new river crossings and surfaced paths, creating routes for dog walkers and those wanting to undertake shorter walks.
- Creation of gateway features and entrances to improve perception and encourage use by wider community.
- Use of large open spaces for flood storage that can still be used for sports pitches and other open spaces in non-flood events.

Action Zones

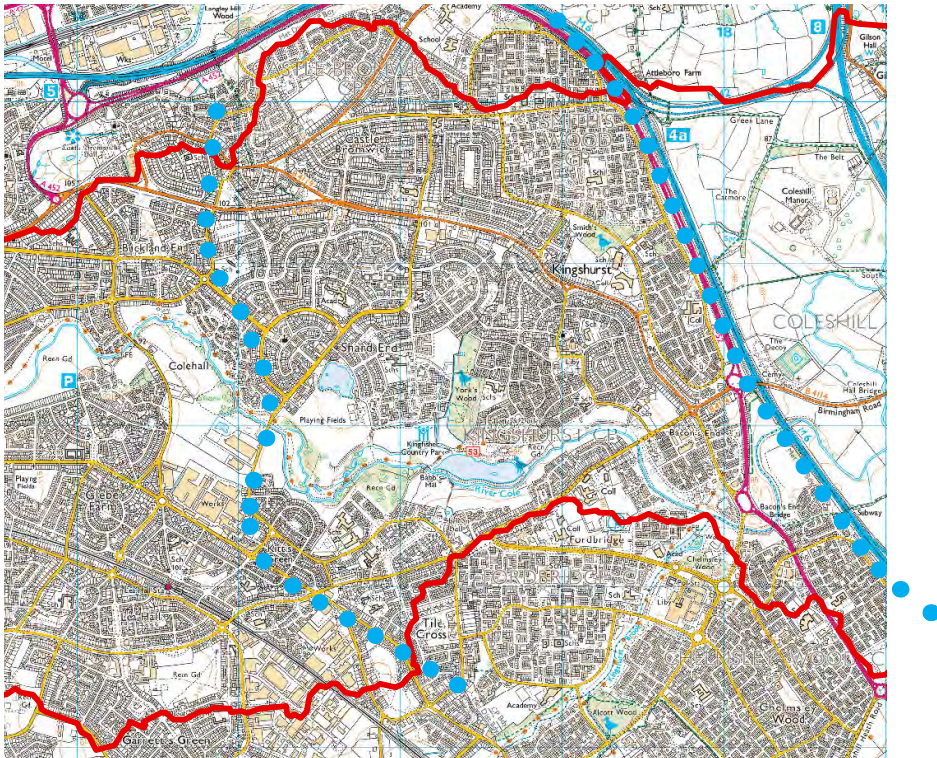
Action Zone 4: A45 Coventry Road to Packington Avenue



Action Zones

Action Zone 5: Packington Avenue to Kingshurst Brook

The nature of the river corridor becomes increasingly naturalised here as landform, vegetation and distance combine to provide visual separation between the green space and surrounding urban areas, particularly between Packington Avenue and Babbs Mill Lake. Babbs Mill lake is a notable feature distinct from other waterbodies in the catchment owing to its size, a circular walk around the lake provides visual amenity and its banks provide a range of ecological habitats including reed beds. A range of heritage features are present including Babbs Mill Grade II Listed Building, the motte and bailey castle with later moated site Scheduled Monument at Stonebridge Crescent and Yorks Wood Ancient and Semi-Natural Woodland. Some sections of the river channel are of good quality, presenting meanders, gravels and a range of riparian vegetation.



Issues that are specific or particularly relevant to this Action Zone are described below:

- Whilst providing visual separation as a green corridor, the river itself is not readily noticeable to the wider community.
- Most circular routes through the area are relatively long.
- Good east-west connections but the River provides a barrier to north-south connectivity.
- The history and value of the location is not immediately relevant for visitors.
- Some blocks of vegetation would benefit from a management regime.

Opportunities that are specific or particularly relevant to this Action Zone are described below:

- Improve the interface between the river and Yorks Wood.
- Create marked trails and associated interpretation to encourage wider exploration and improve sense of place.
- Encourage community engagement and sense of ownership to reduce anti-social behaviour.
- Enhance the quality of the river channel on approach to Kingshurst Brook.
- Creation of flood storage areas.
- Increase north-south connectivity and accessibility of some of the longer circular routes.

Action Zones

Action Zone 5: Packington Avenue to Kingshurst Brook



View along access east of Lea Ford Road



View south from surfaced route towards River Cole



View from the south west corner of Babbs Mill Lake



Riverside vegetation and in-channel features



Recreation ground south of Fordbridge Road



View from pedestrian bridge north of Meriden Park



Action Zones

Action Zone 6: Kingshurst Brook to River Blythe

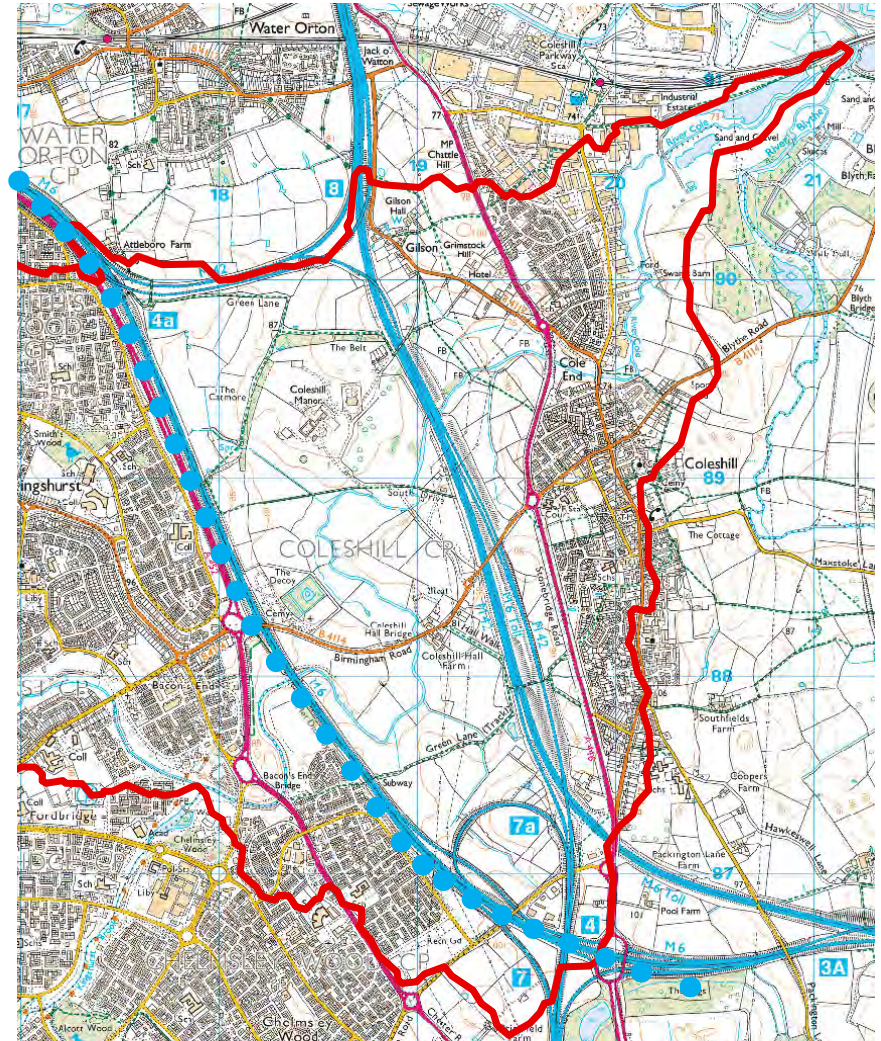
The eastern end of this Action Zone includes Meriden Park, whilst located outside of the watershed of the catchment it was felt important to include within this area due to its position alongside the River Cole and the environmental and social functions it provides. Meriden Park includes the remnants of Chelmsley Wood and has the Kingshurst Brook passing through it, providing a link south towards major employment and transport hubs around Birmingham International and the National Exhibition Centre. Around the river corridor the area is characterised by the presence of several major transport corridors including the M42, M6, A446, A452 and the proposed route of High Speed 2 and the HS2 Interchange Station - the first station outside of London which will be built next to the M42 and opposite the NEC. Between Meriden Park and Cole End Park the area around the river becomes agricultural in nature which is a unique feature in terms of this catchment.

Issues that are specific or particularly relevant to this Action Zone are described below:

- Accessibility along the river is limited to sections along Meriden Park, Cole Bank Park Local Nature Reserve and Cole End Park.
- Future impacts associated with HS2, particularly through the construction period.
- Ongoing mineral extraction and associated impacts.
- Lack of tranquillity due to presence of major transport infrastructure.

Opportunities that are specific or particularly relevant to this Action Zone are described below:

- Potential for archaeological digs and finds through works associated with HS2 which can be used to enhance sense of place and interpretation of the area.
- Environment-led restoration of mineral workings.
- Creation of an accessible route along the river corridor between Meriden Park and Coleshill Parkway.
- Improve interpretation/access at bridges across the river.
- Enhancement of existing open spaces at Meriden Park and Cole End Park.



Action Zones

Action Zone 6: Kingshurst Brook to River Blythe



View south across existing weir in Meriden Park



Entrance to Cole Bank Park Local Nature Reserve



View west along Birmingham Road



View across Cole End Park from pedestrian bridge



Coleshill Bridge Scheduled Monument



Pedestrian style east of Gorsey Lane



Opportunity Sites



Meriden Park

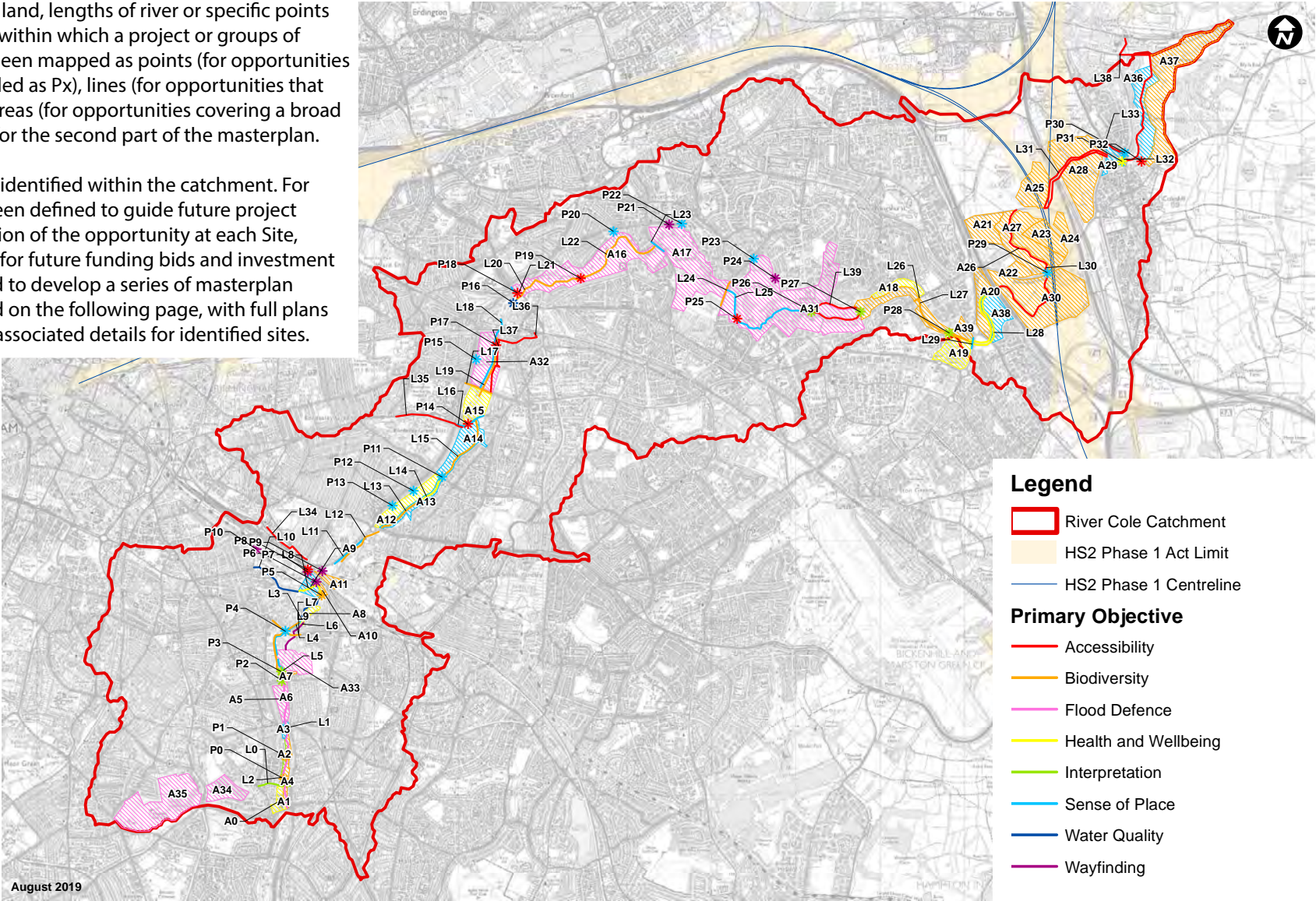


Opportunity Sites

Opportunity Sites are defined parcels of land, lengths of river or specific points of the catchment around the River Cole within which a project or groups of projects could be delivered. They have been mapped as points (for opportunities associated with a specific location, labelled as Px), lines (for opportunities that are linear in nature, labelled as Lx) and areas (for opportunities covering a broad area, labelled as Ax) and form the basis for the second part of the masterplan.

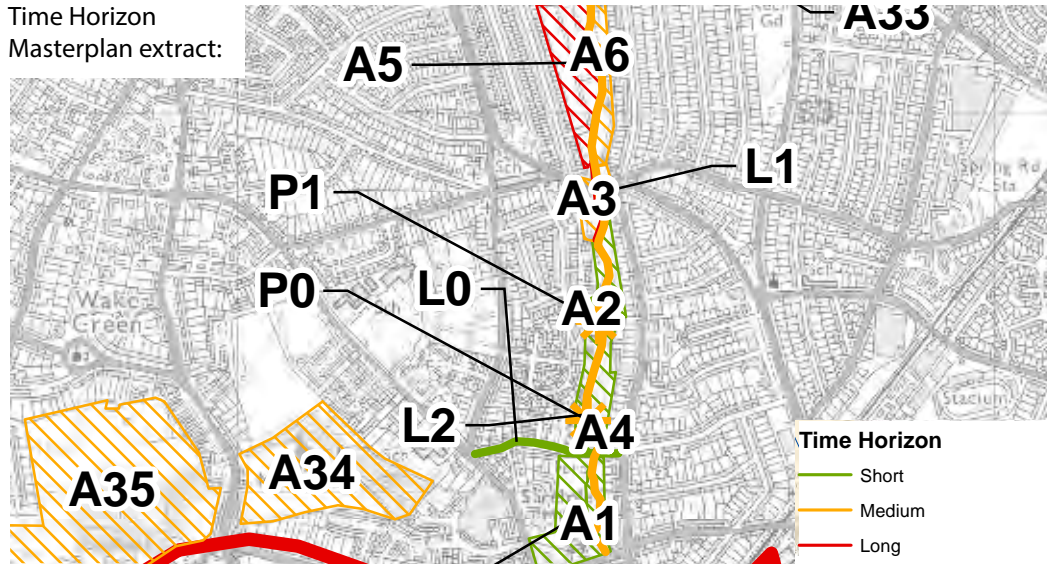
A range of Opportunity Sites have been identified within the catchment. For each Site a number of attributes have been defined to guide future project development, alongside a brief description of the opportunity at each Site, informed by stakeholders requirements for future funding bids and investment decisions. The attributes have been used to develop a series of masterplan outputs. Extracts are presented here and on the following page, with full plans presented in Appendix B alongside the associated details for identified sites.

Priority Objective Masterplan:

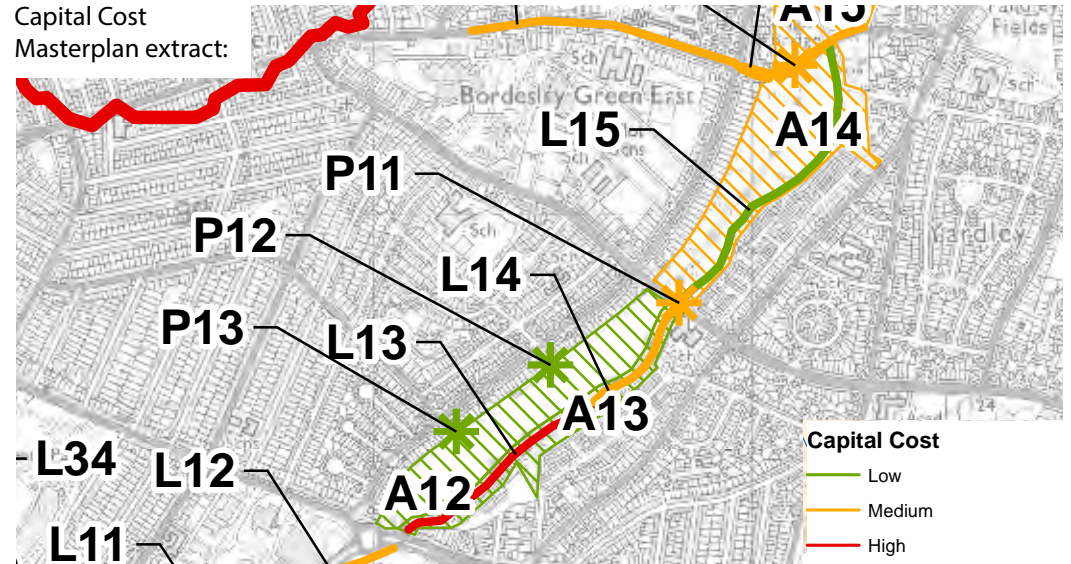


Opportunity Sites

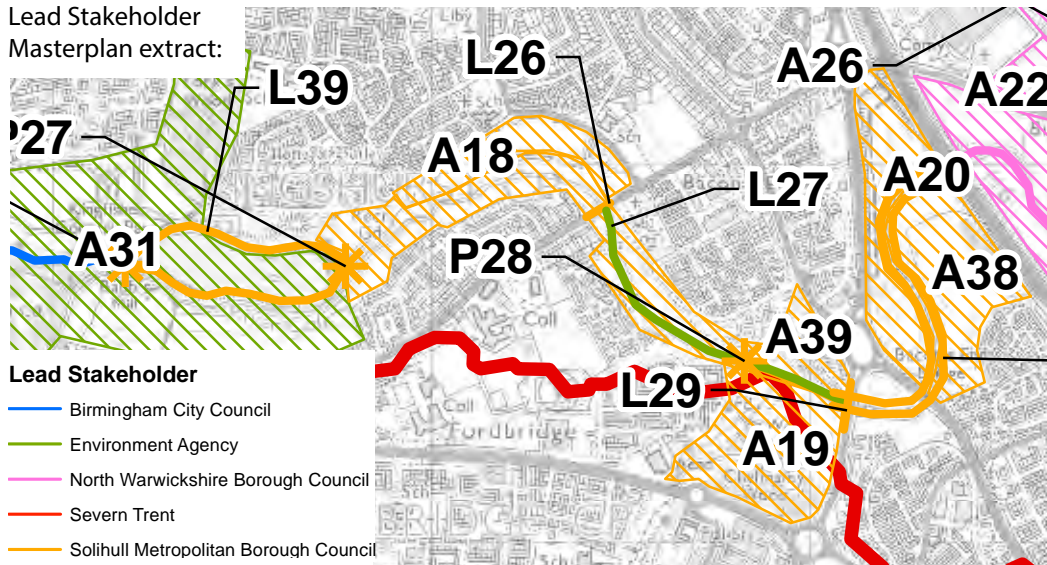
Time Horizon
Masterplan extract:



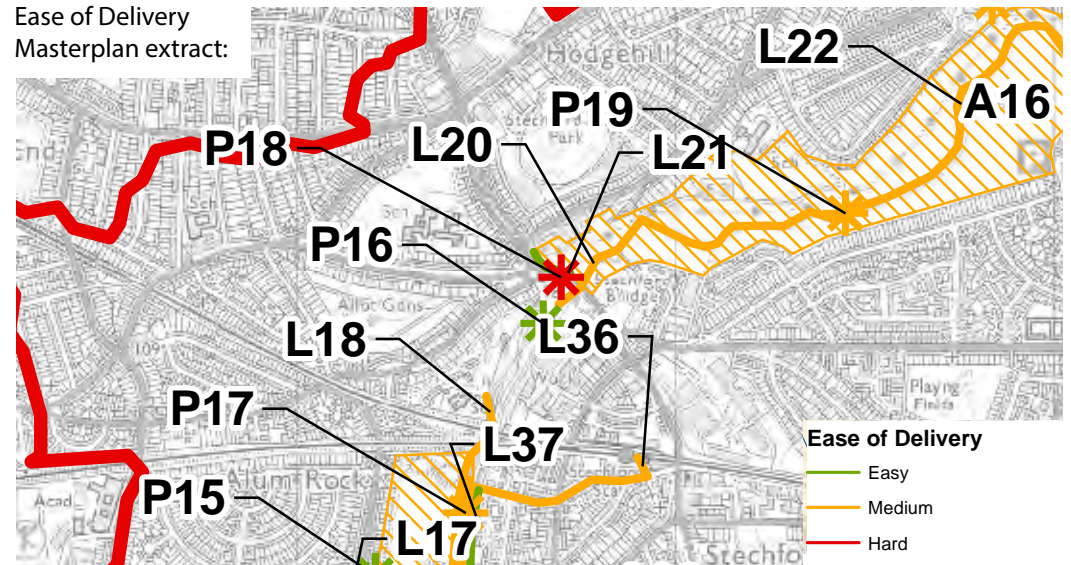
Capital Cost
Masterplan extract:



Lead Stakeholder
Masterplan extract:



Ease of Delivery
Masterplan extract:



Case Study Site Proposals



View north towards Meriden Park weir

Case Study Site Proposals

Case Study Site proposals have been produced at a conceptual level of detail based on initial site visits and reflections from the Steering Group. They demonstrate how the Vision, Strategic Objectives and Masterplan can be achieved on the ground. Engagement was undertaken with stakeholders on three Case Study Sites as agreed with the Steering Group, one for each of the local authority areas.

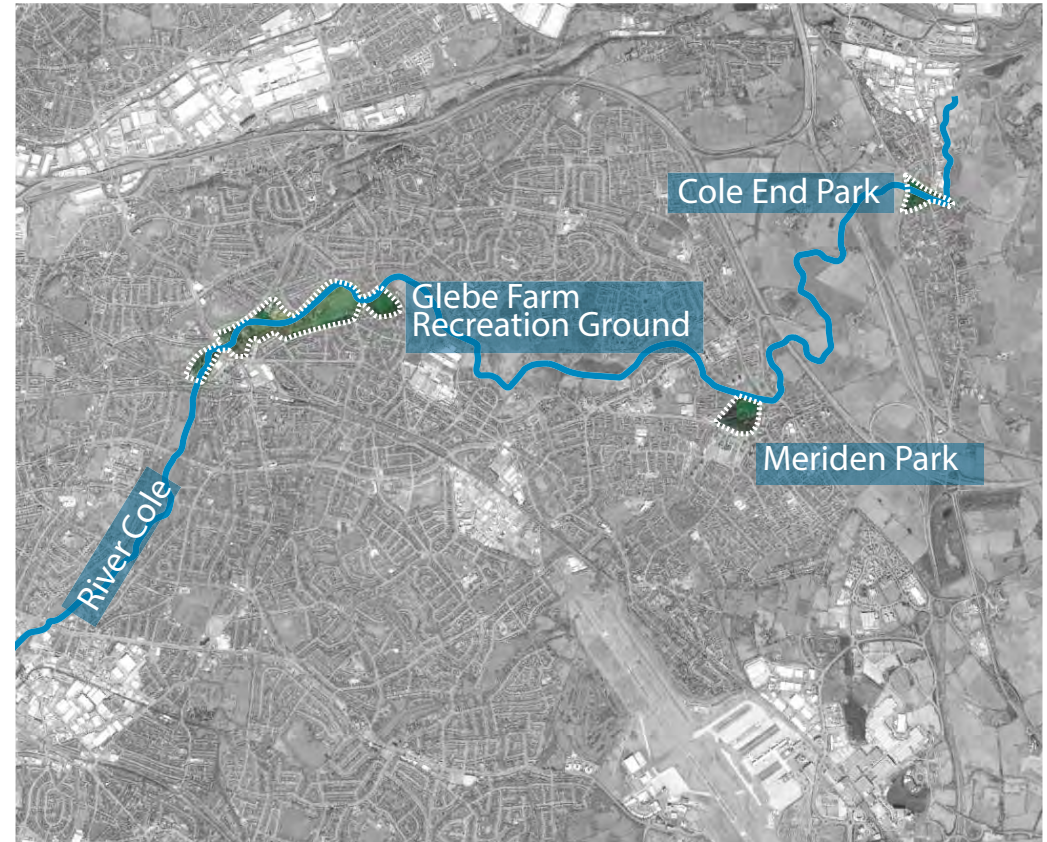
Case Study Sites were selected on the basis of having:

- Good ease or prospect of delivery.
- Local stakeholder support.
- Identified funding route.
- Having visible local impact.

The proposals present an initial view on how the site could be delivered, however they would need to go through a full design process and further analysis, consultation and development prior to implementation.

The following Case Study Sites have been selected and the proposals are summarised over the following pages, with further detail, analysis and indicative cost estimates in Appendix C:

- Glebe Farm Recreation Ground (within Action Zone 4)
- Meriden Park (within Action Zone 5)
- Cole End Park (within Action Zone 6)



Case Study Site Proposals

Glebe Farm Recreation Ground

This Case Study Site is located within Action Zone 4: A45 Coventry Road to Packington Avenue, key constraints within the Case Study Site include:

- Litter and fly-tipping.
- Dog waste.
- Accessibility and movement (grass paths only, one river crossing).
- Lack of appropriate maintenance in certain locations.
- Evidence of Japanese Knotweed found on site.

Opportunities and proposed interventions:

- Hard paved loop around the park, connecting all the access points and play area (accessibility, cycling, walking).
- Rubbish bins at every access point and play area.
- New pedestrian river crossing.
- Seating along the main path and few picnic tables.
- Introducing additional tree and shrub planting areas and wildflower meadows suitable for local condition.
- Creating information boards about local fauna and flora, nature trails etc. (could be done as a community project).
- Transforming local woodland in the east side into nature trail/woodland play area (community project).
- Close cut grass - potential for different mowing regime/introduction of suitable meadow species to encourage biodiversity and pedestrian routes.
- Creation of flood storage areas



Case Study Site Proposals

Glebe Farm Recreation Ground

Proposed masterplan

Proposed planting areas and wild-flower meadows suitable for local condition.

New hard paved footpath around the park connecting all the access points and play area, and creating a circular path for walking and cycling.

Wider connection along River Cole.

New footbridge over river to connect the north and south sides of the recreational grounds.

Information boards about local flora, nature trails, etc.

Mowing regime change for a mow path.

Wider connection along River Cole.

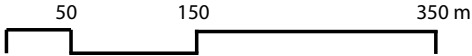
Potential flood storage areas

Proposed location for natural play area; implement nature trails into the existing woodland in the east side area of the park.

Information boards about local flora, nature trails, etc.

This site falls within a catchment wide issue to address invasive species, specific locations or treatments have not been mapped or included within costings.

- Key
- Proposed location of information boards
- ⋯ Existing access retained



Case Study Site Proposals

Glebe Farm Recreation Ground



These visualisations show opportunities to improve seasonal interest and biodiversity at the Recreation Ground, as well as offering more accessible routes to enjoy new features.



Case Study Site Proposals

Meriden Park

This Case Study Site is located on the boundary between Action Zone 5: Packington Avenue to Kingshurst Brook and Action Zone 6: Kingshurst Brook to River Blythe. Key constraints and opportunities within the Case Study Site are described below.

Main Entrance and Car Park Area:

- Signage could be improved
- Unwelcoming
- No footpath access
- Limited spaces
- Cluttered appearance
- Inconsistent surfacing
- Some attractive trees
- Level changes across areas
- Seemingly disparate buildings



Tennis Courts:

- Used by community
- Needs resurfacing
- Needs better fence/gate
- Poor signage
- Poor access for all abilities

Bowling Green:

- Not currently utilised as a green
- Good existing perimeter hedge
- Potential for use as new building site or site for enclosed outdoor cinema

Play Facilities/Open Space:

- Good variety of play provision
- Open spaces are well managed
- Large open space utilised for annual events

Woodland:

- Good quality woodland area
- Potential for all ability access through woodland
- Continued and enhanced management recommended
- More signage on history of wood and biodiversity

Island:

- Good quality woodland area
- Enhanced management recommended
- Potential for use as forest school/bird watching environment
- Recommend securable access to prevent unwanted out of hours access

Non specific interventions:

- Potential for some improved connections from SW through the woodland area.
- Signage for available facilities and routes through the park could be improved
- Potential for interpretation boards across site to highlight habitats, history of area and connection to rest of Cole Valley
- Potential to create traffic free circular routes around park with footbridges over river
- Potential to create pond dipping platforms along new lake edge and river edges

Case Study Site Proposals

Meriden Park

Proposed masterplan



Case Study Site Proposals

Meriden Park



These visualisations show opportunities to create an accessible woodland walk, more direct access to the waters edge and a community hub with cafe.



Case Study Site Proposals

Cole End Park

This Case Study Site is located within Action Zone 6: Kingshurst Brook to River Blythe. Key constraints and opportunities within the Case Study Site include:

- Close cut grass - potential for different mowing regime to encourage biodiversity and pedestrian routes
- Raised earthwork - potentially river gravels from earlier river canalisation - could be used to create riffles and other features on river bed
- High banks and vertical sides, bank profiles could be re-naturalised to provide improved habitat and flow structure
- Established footpaths
- Culverts without flow in to river (two collapsed/blocked)
- Potential for additional onsite parking subject to services search
- Bridge (pedestrian) requires updating. Too narrow for two people to pass.
- Silt build up here over time due to flooding, this could remedied and managed to improve aesthetic and better protect receptors such as aquatic life.
- Arches underneath the swere pipe culvert provide permeability but poor headroom, opportunity to increase headroom under arches by lowering ground level.
- Play area - conventional equipment on low impact surface, opportunity for refurbished and new play equipment to cater for wider age range as well as natural play features.



Case Study Site Proposals

Cole End Park

Proposed masterplan

Mowing regime change
mow paths - leave areas long
to encourage biodiversity.

New pathway to create vehicle free
circulation walk opportunity to
create new cycle connections along
the River Cole.

Potential connection to Meriden
Park along River Cole.

Regrade channel, introduce
washed river gravels and
in-channel features to create
low flow channel.

Lowered river bank, to
encourage biodiversity,
re-route footpath around
lowered river banks.

Re-route footpath around
lowered river bank.

Information boards about
local flora, nature trails, etc.

Proposed natural play areas.

This site falls within a catchment wide issue to address invasive species,
specific locations or treatments have not been mapped or included
within costings.

River bed features (gravel,
woody debris, low flow
channels) proposed in a
number of locations

Potential for new on-site
parking area.

Proposed cycle stands.

Information boards about
local flora, nature trails, etc.

Potential connection to
Coleshill Parkway along
River Cole.

New contemporary bridge
improve visual impact and
character to the park.

Information boards about
local flora, nature trails, etc.

Lower ground to increase
head room through arches.

- Key
- Proposed location of information boards
 - ⋯ Existing access retained
 - Lower ground to increase head room through arches



Case Study Site Proposals

Cole End Park



This visualisation expresses the opportunity for a replacement pedestrian footbridge and improvements to river bank profiles in order to encourage both biodiversity and access to the waters edge.



Next Steps



River Cole through Glebe Farm Recreation Ground



Next Steps

The next steps for the project are to share and communicate the Vision, Strategic Objectives and Masterplan to a wider audience, identify funding mechanisms and deliver physical improvements or activity on the ground.

Communicate

Whilst the project has been developed with the support and guidance from a wide range of organisations, it will be important to communicate more broadly within those organisations, to other organisations outside the Steering Group and to local communities.

A public-facing website, newsletter or equivalent should be created to share information on the project and progress of initiatives focused on the River Cole catchment from all stakeholders.

Organisations should be encouraged to share the Vision as widely as possible, to capture emerging opportunities for collaboration and to embed the Vision within the organisation. In addition, specific webpages on stakeholder websites would help to highlight the support of the stakeholder for the initiative and link to a River Cole catchment specific website.

Continue to work closely with Steering Group organisations to align the Vision with ongoing initiatives including:

- HS2 and associated works, HS2 green corridor.
- 25 YEP (Government bodies).
- Natural Capital Investment Plan (WMCA).
- Green Spaces Strategies (Local Authorities).
- Urban Centres Framework (BCC).
- Severn Trent Asset Management Programme.
- Capital works to sewage infrastructure.
- Biodiversity improvement metrics
- Catchment Connect

Fund

Utilise the masterplan and Case Study Site Proposals to identify funding streams and potential application routes associated with single or multiple aspects of the vision across flood risk, accessibility, health and wellbeing, biodiversity, heritage, interpretation and others.

Explore the potential for grants match-funding across organisations to deliver projects that could not be delivered or funded individually.

Prepare or encourage funding applications to appropriate funds, for example the National Lottery, HS2 Community and Environment Fund and Business and Local Economy Funds.

Embed the opportunities for delivery of the Vision in local authority Community Infrastructure Levy or Section 106 initiatives.

Promote the Vision to private developers or businesses to encourage biodiversity offsetting or contribution to initiatives.

Identify an appropriate organisation to take ownership of catchment wide initiatives in order to collate funding from multiple agencies to facilitate delivery of initiatives such as the suggested Ranger Service.

Deliver

Develop delivery plans for each of the Case Study Site Proposals to work through design, funding, permissions and implementation. Early delivery on the ground will create a visible manifestation of the Vision, encouraging further delivery and engagement.

Develop catchment-wide design guide for branding, signage, materials and street furniture Where projects are undertaken by stakeholders within the catchment, consider opportunities for other benefits to be delivered concurrently.

Explore the potential for a range of delivery mechanisms including use of community groups and HS2 contractors.





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Tame Valley Wetlands

