



Cole Valley Catchment Landscape Vision

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ATKINS
Member of the SNC-Lavalin Group



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



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.

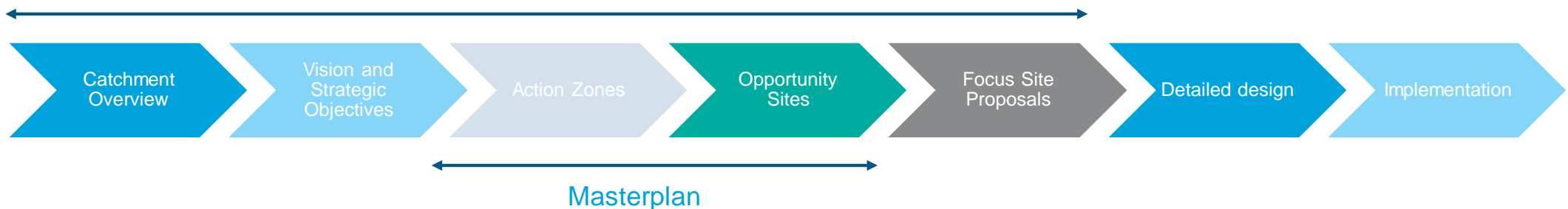
A broad literature and policy review was undertaken covering: Local Planning Policy; Environment Agency data; and other Local Plans, Neighbourhood Plans and initiatives.

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.

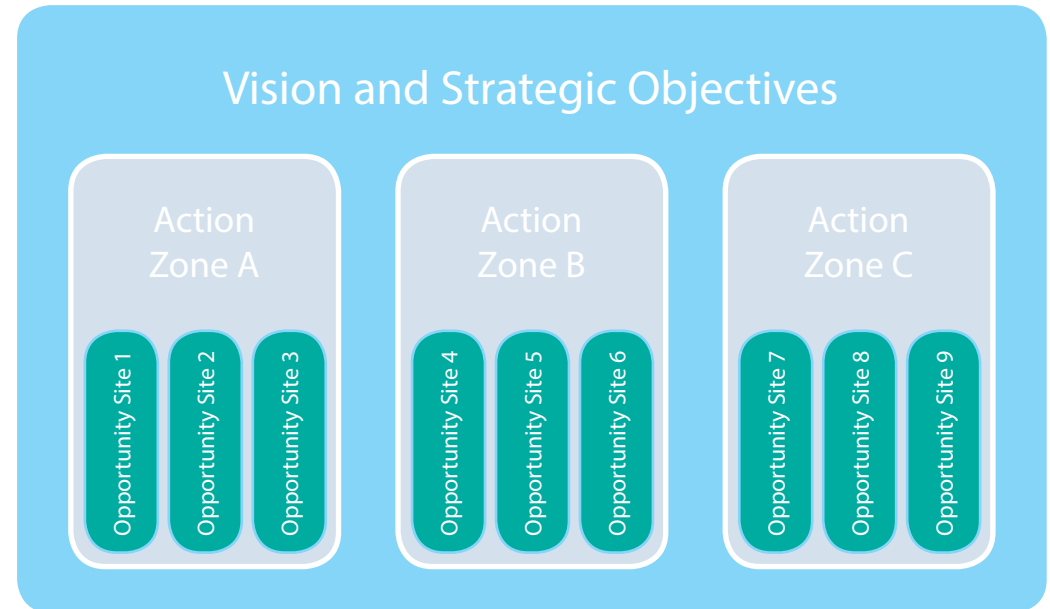
Action Zones are broad areas that have a similar character, condition, issues and opportunities. Opportunity Sites are defined parcels of land, lengths of river or specific points of the catchment around the River Cole within which a project or groups of projects could be delivered.

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)

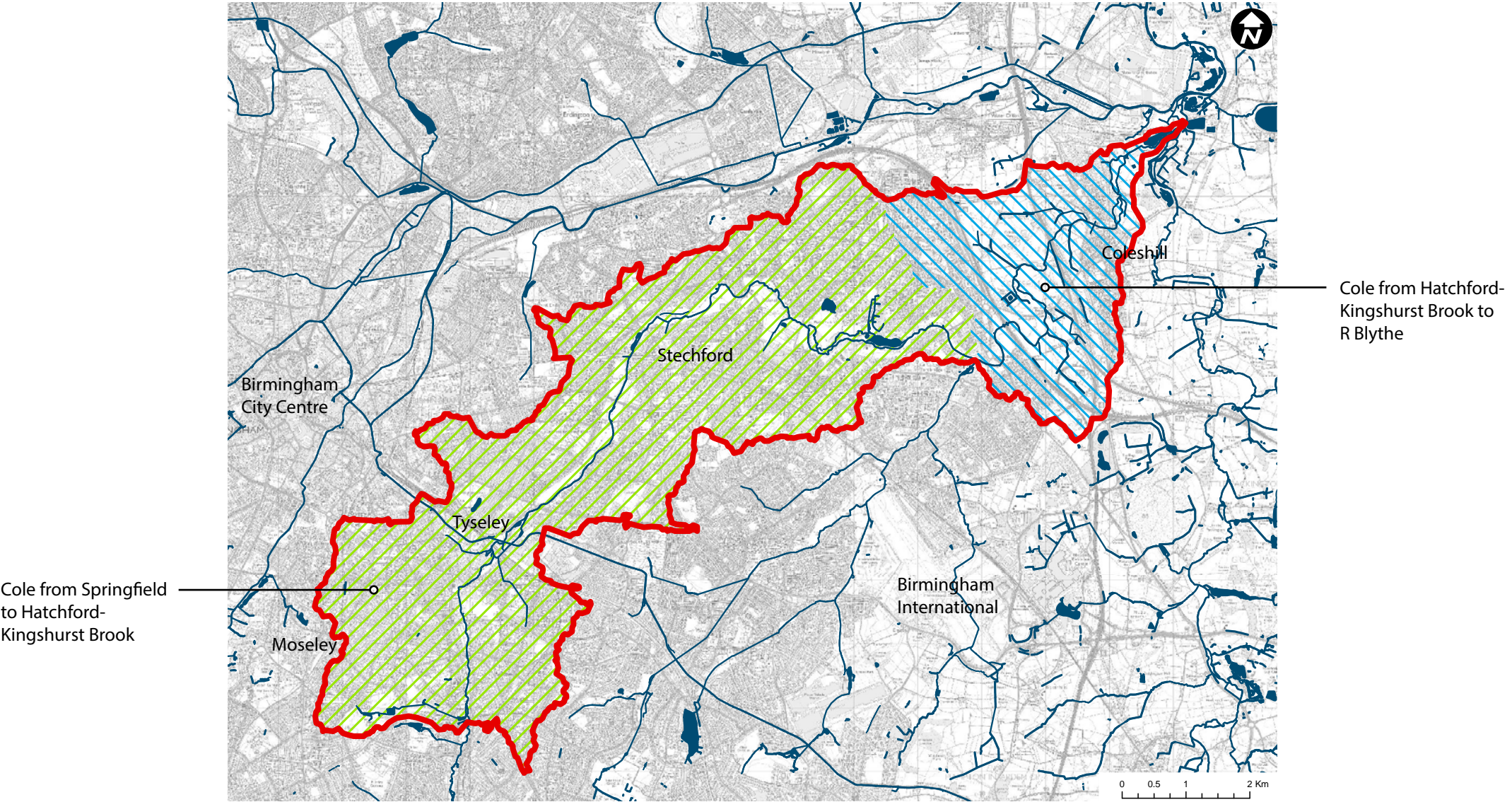


View south from A34 Stratford Road bridge



River bank at Cole End Park

Catchment Overview



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

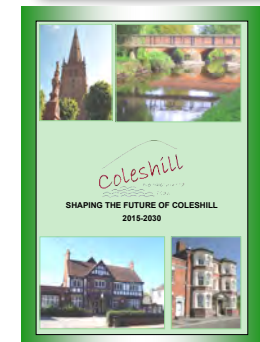
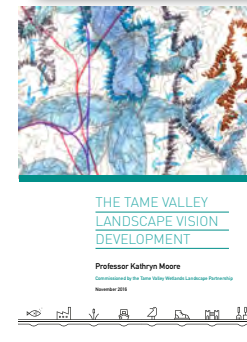
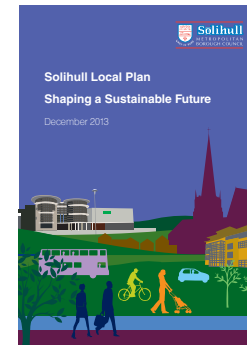
Policy and Development Context

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

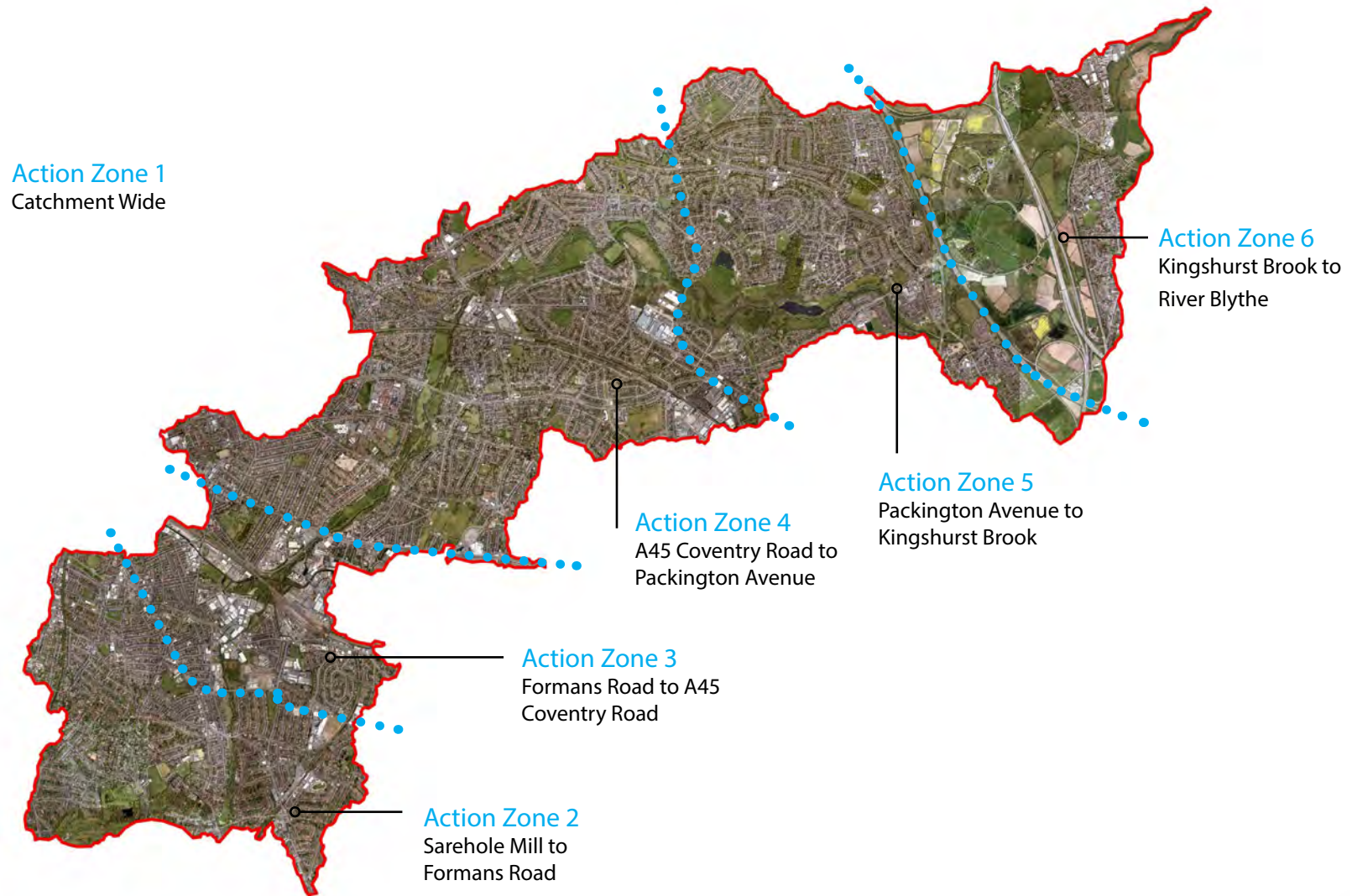


View north from Formans Road bridge



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.

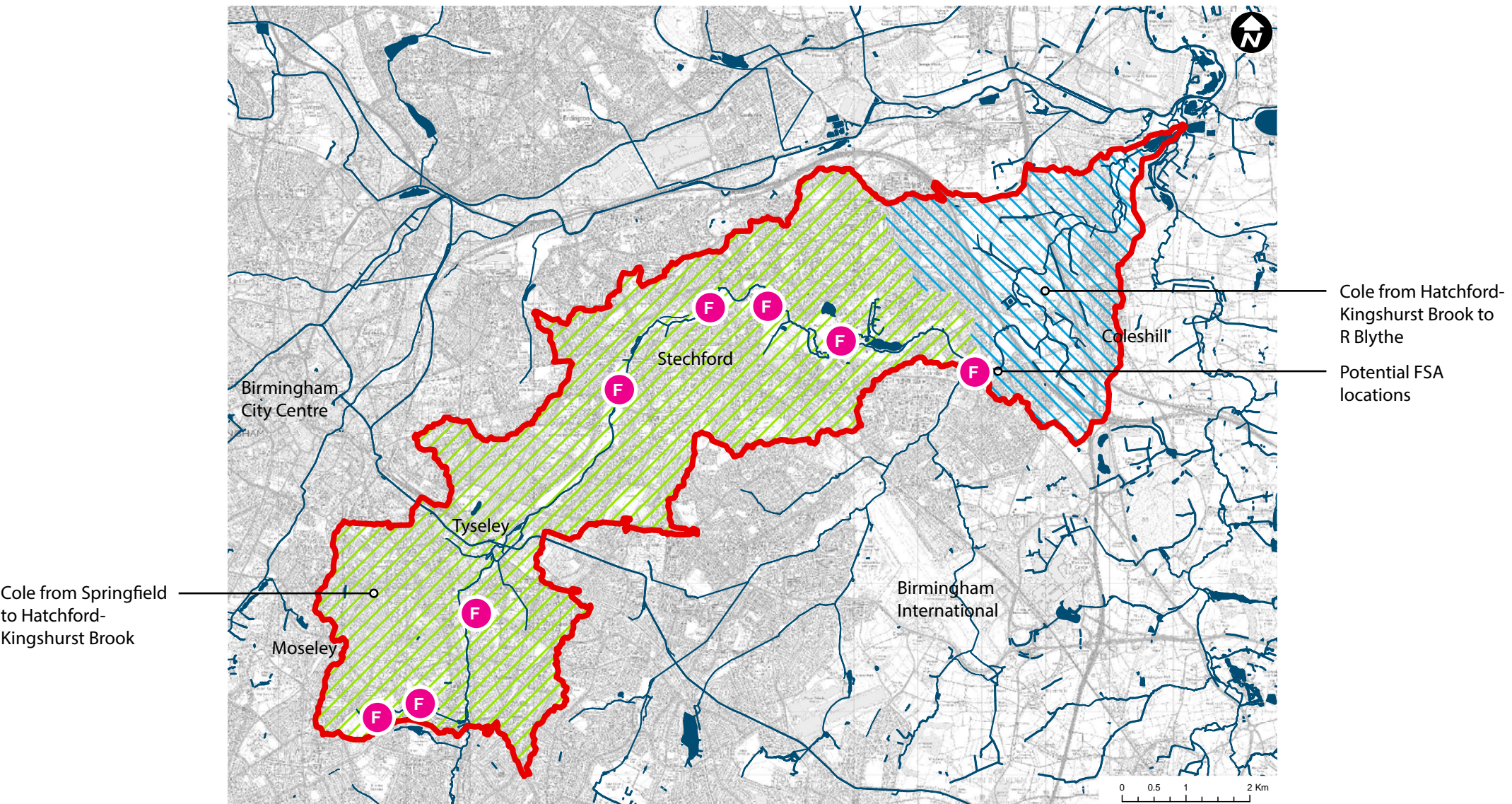
Flood Storage Areas (FSAs): FSAs are natural or man-made areas that temporarily fill with water during periods of high river level, retaining a volume of water which is released back in to the watercourse after the peak river flows have passed. Enhancing the biodiversity value and other benefits of FSAs 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



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

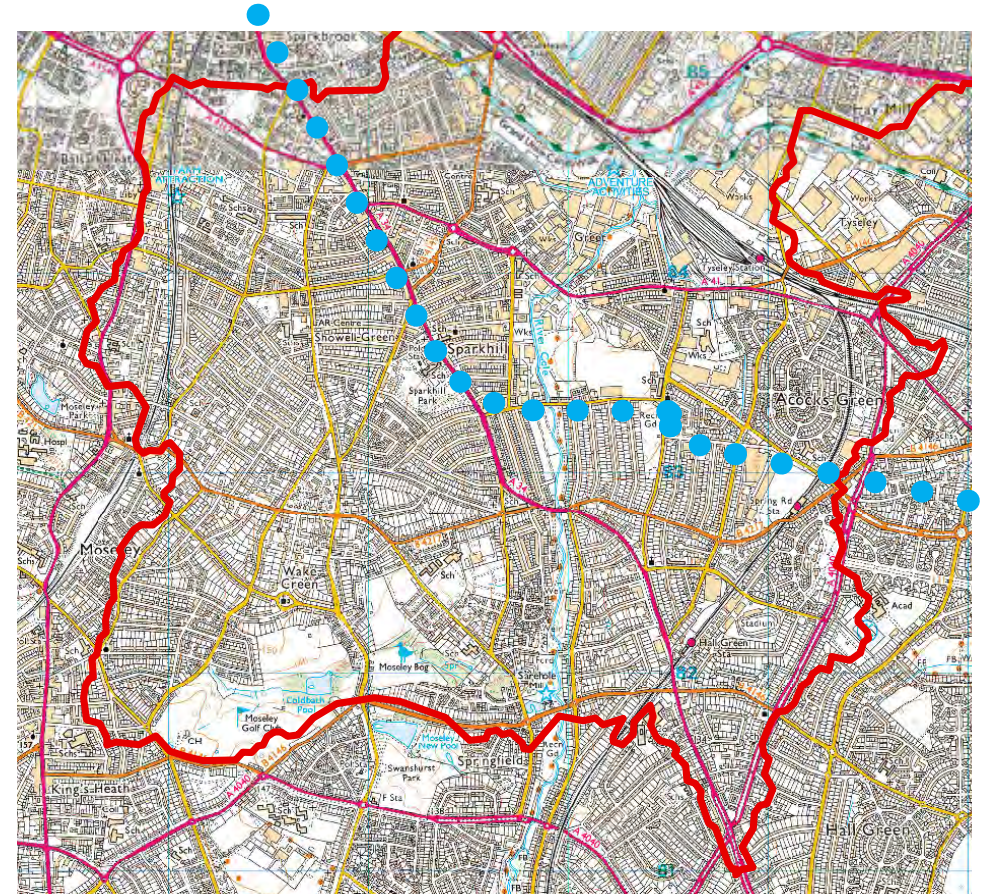
This Action Zone has a clear heritage focus through the presence of Sarehole Mill with its associated built environment and cultural influence. The Mill is a place that acts as a destination to users of the River Cole and includes a car park, maps and accessible surface routes. The area is generally 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



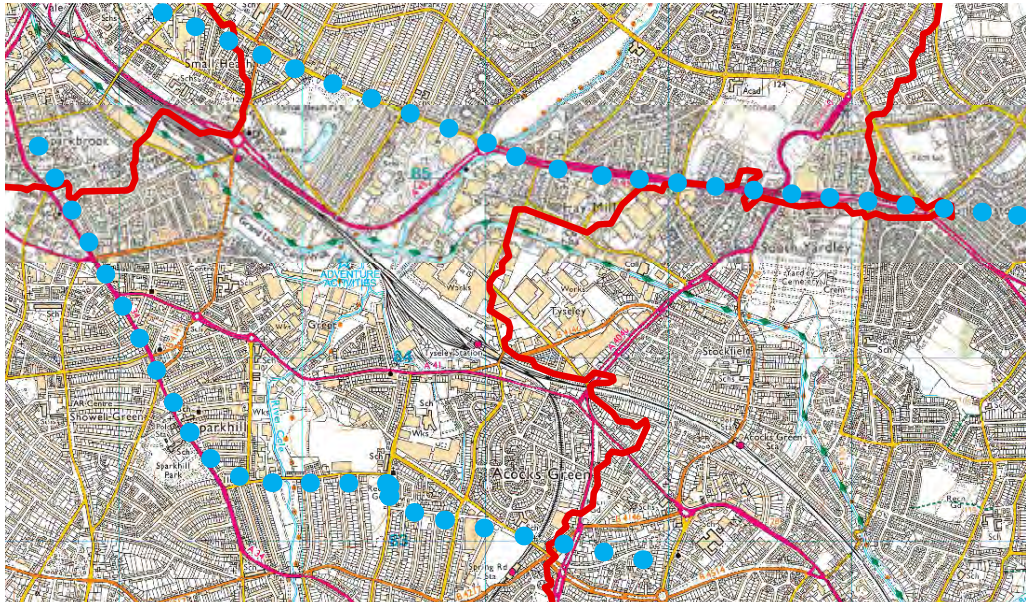
Access to River Cole from A34 Stratford Road



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

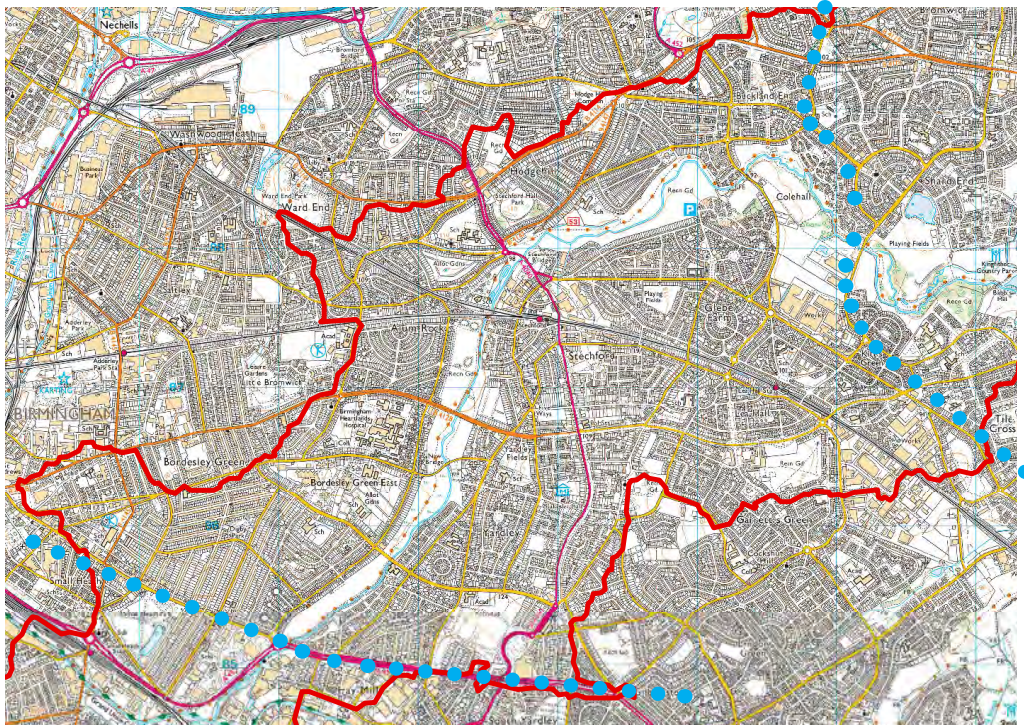
Action Zone 3: Formans Road to A45 Coventry Road



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



Information panel adjacent to A45 Coventry Road



View towards River Cole from access off Heybarnes Road



View of access off Heybarnes Road



Route along River Cole under railway viaduct



Surfaced route east of A4040

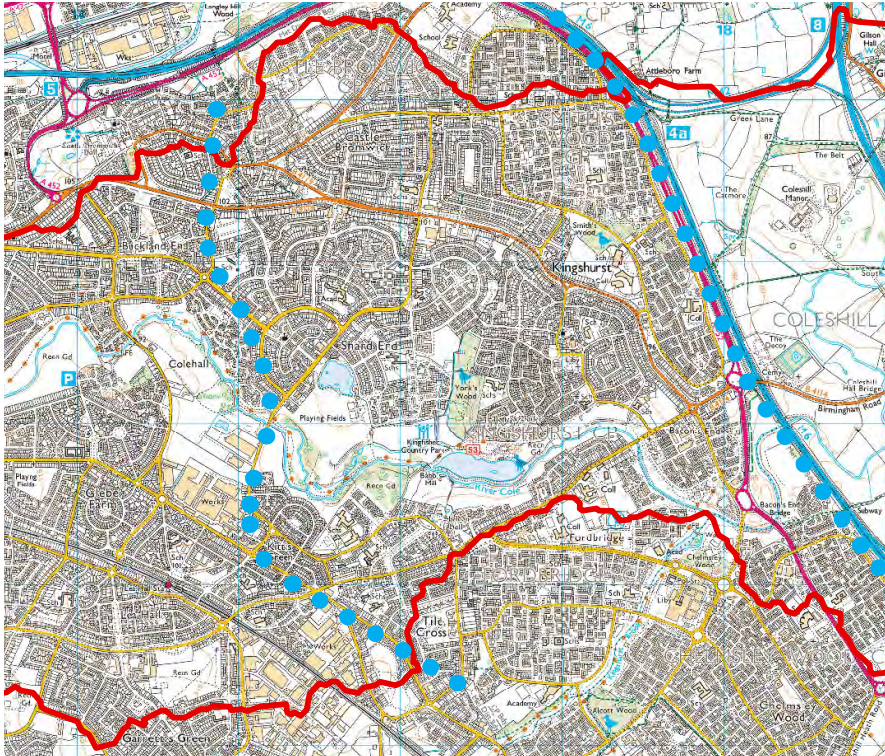


River meanders south of Brook Meadow Road

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

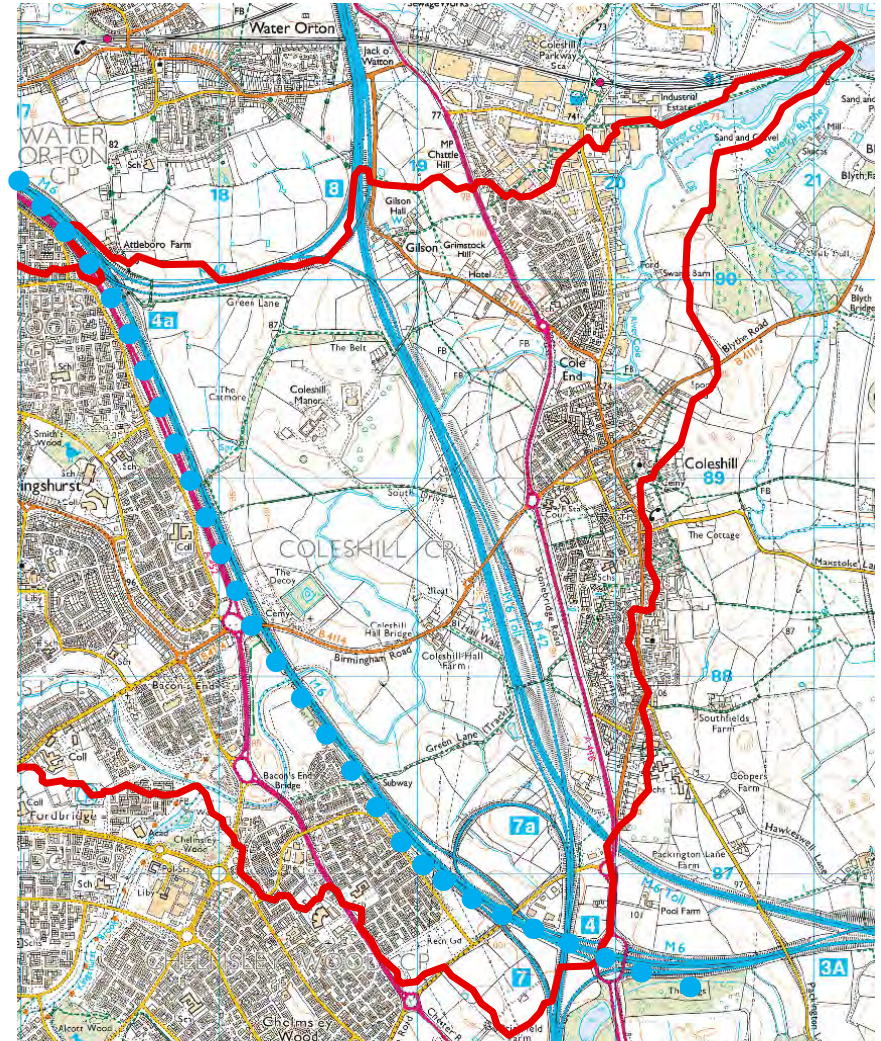
The eastern end of this Action Zone includes Meriden Park, whilst located outside of the watershed of the catchment it was felt important to include within this area due to its position alongside the River Cole and the environmental and social functions it provides. Meriden Park includes the remnants 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



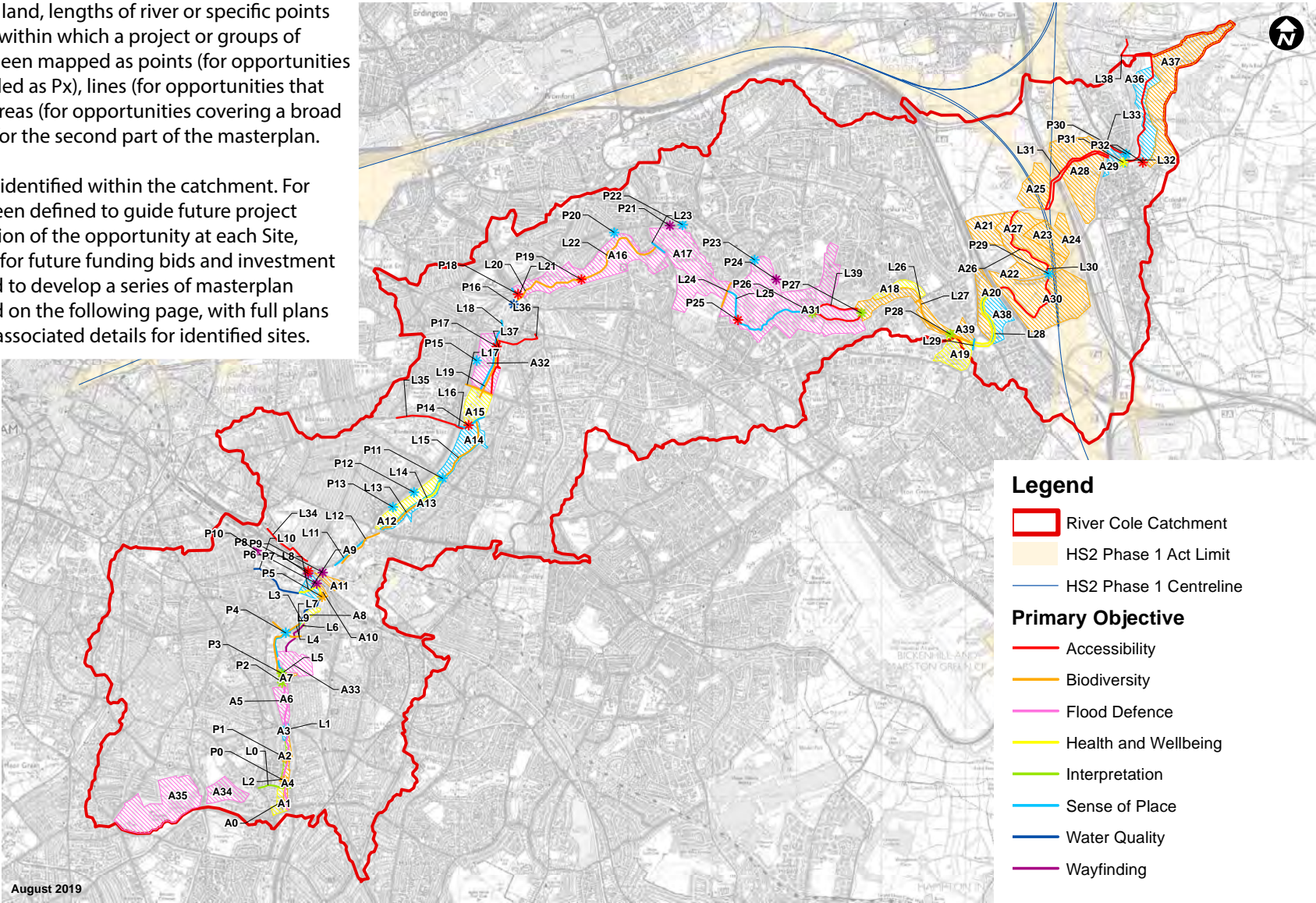
Meriden Park

Opportunity Sites

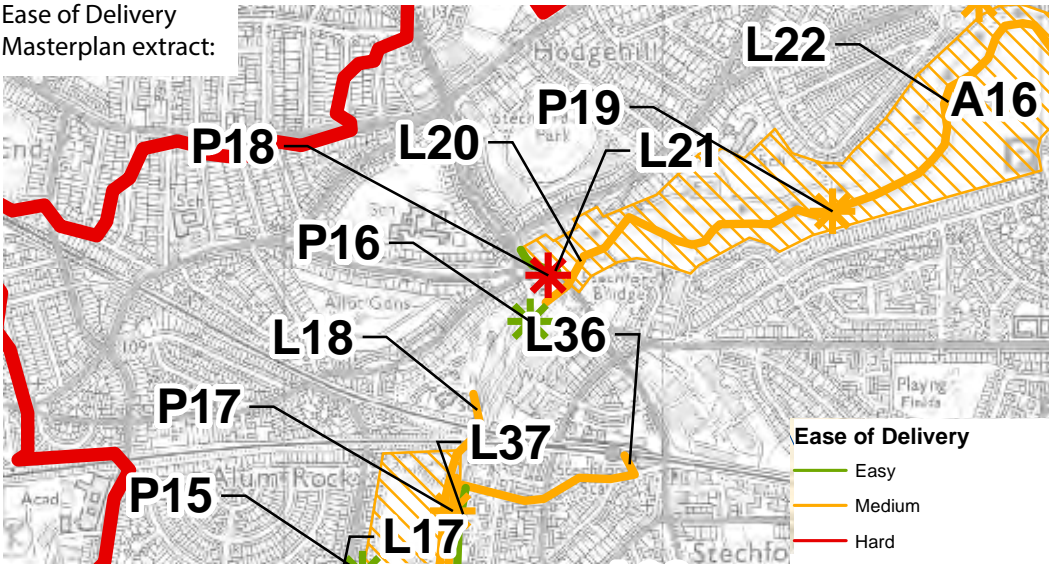
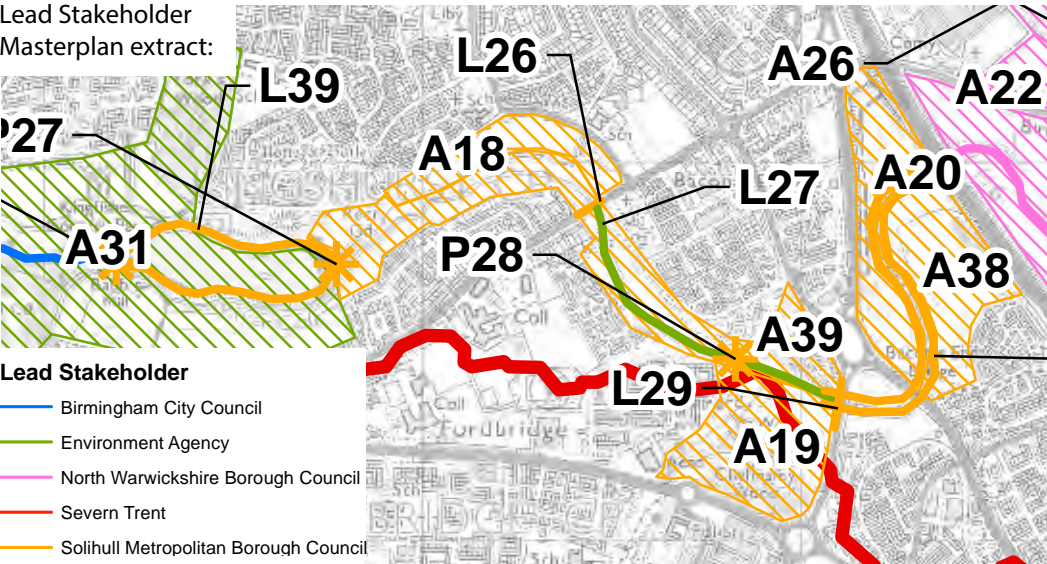
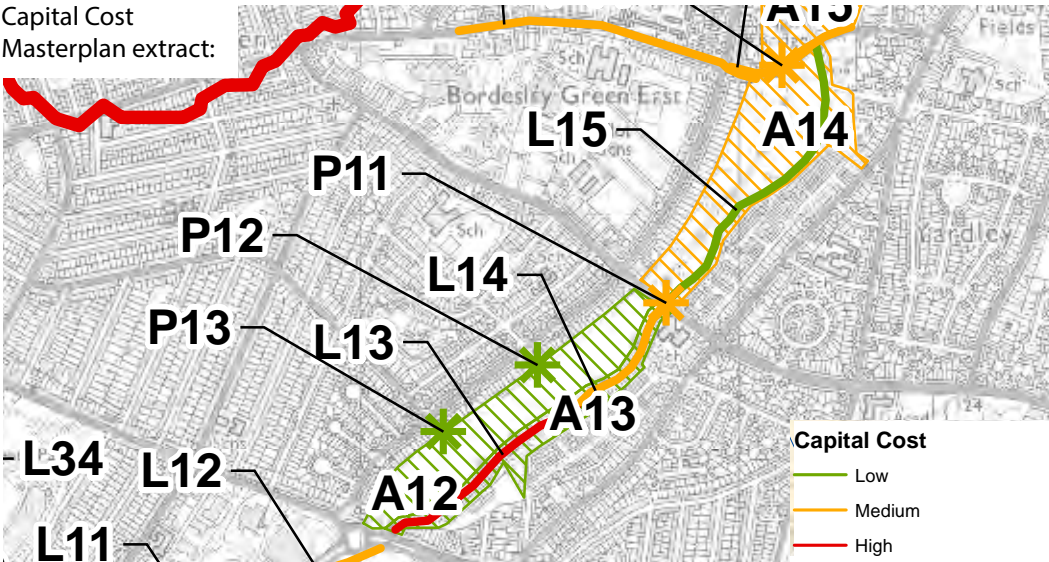
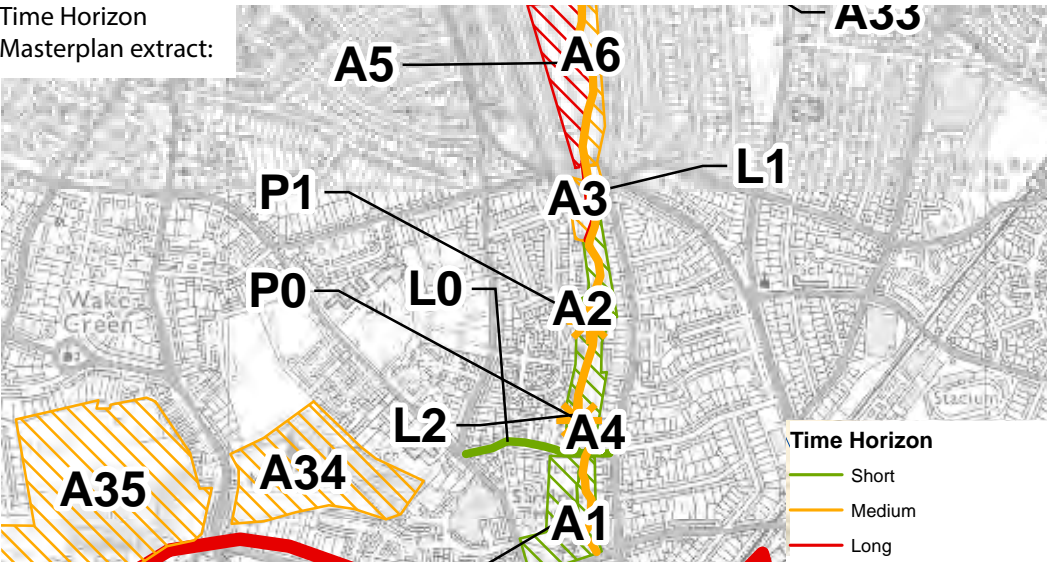
Opportunity Sites are defined parcels of land, lengths of river or specific points of the catchment around the River Cole within which a project or groups of projects could be delivered. They have been mapped as points (for opportunities associated with a specific location, labelled as Px), lines (for 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



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.

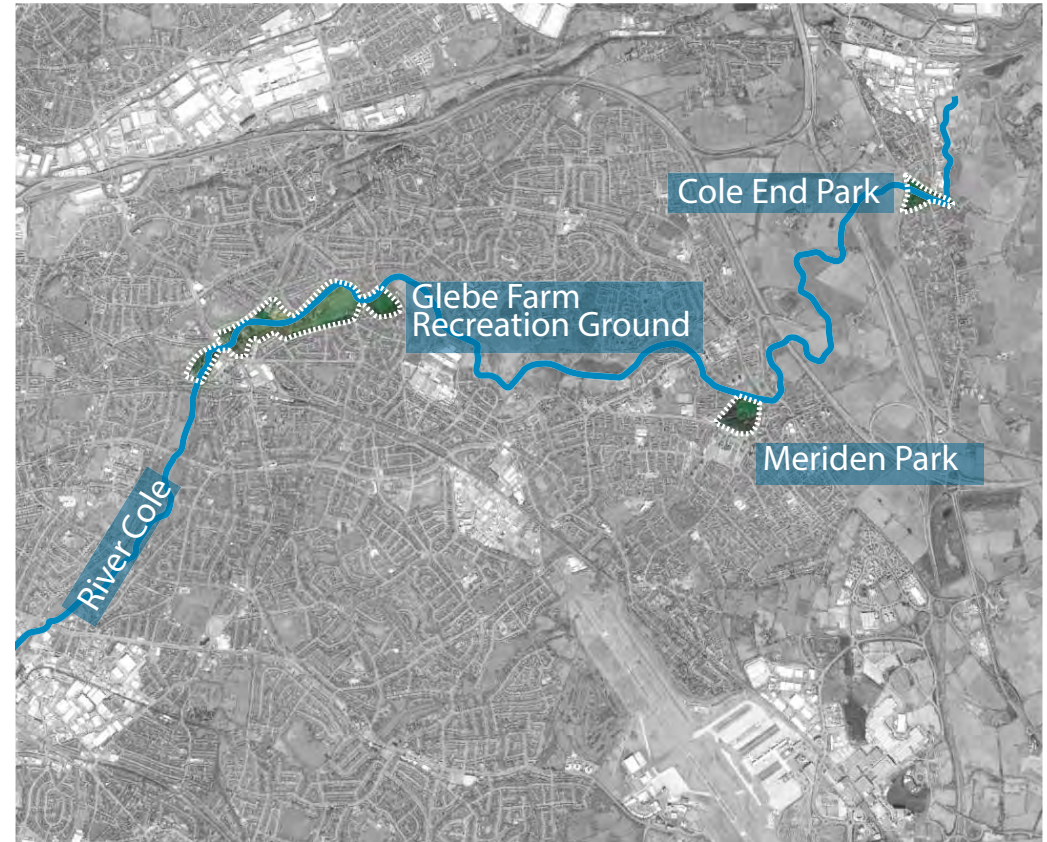
Case Study Sites were selected on the basis of having:

- 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



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

50

150 m



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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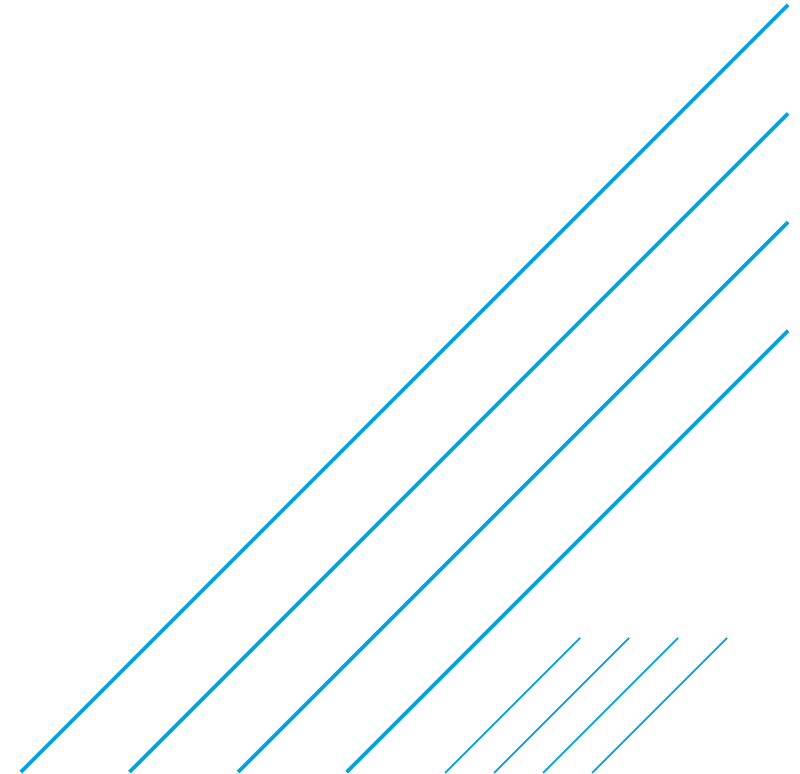


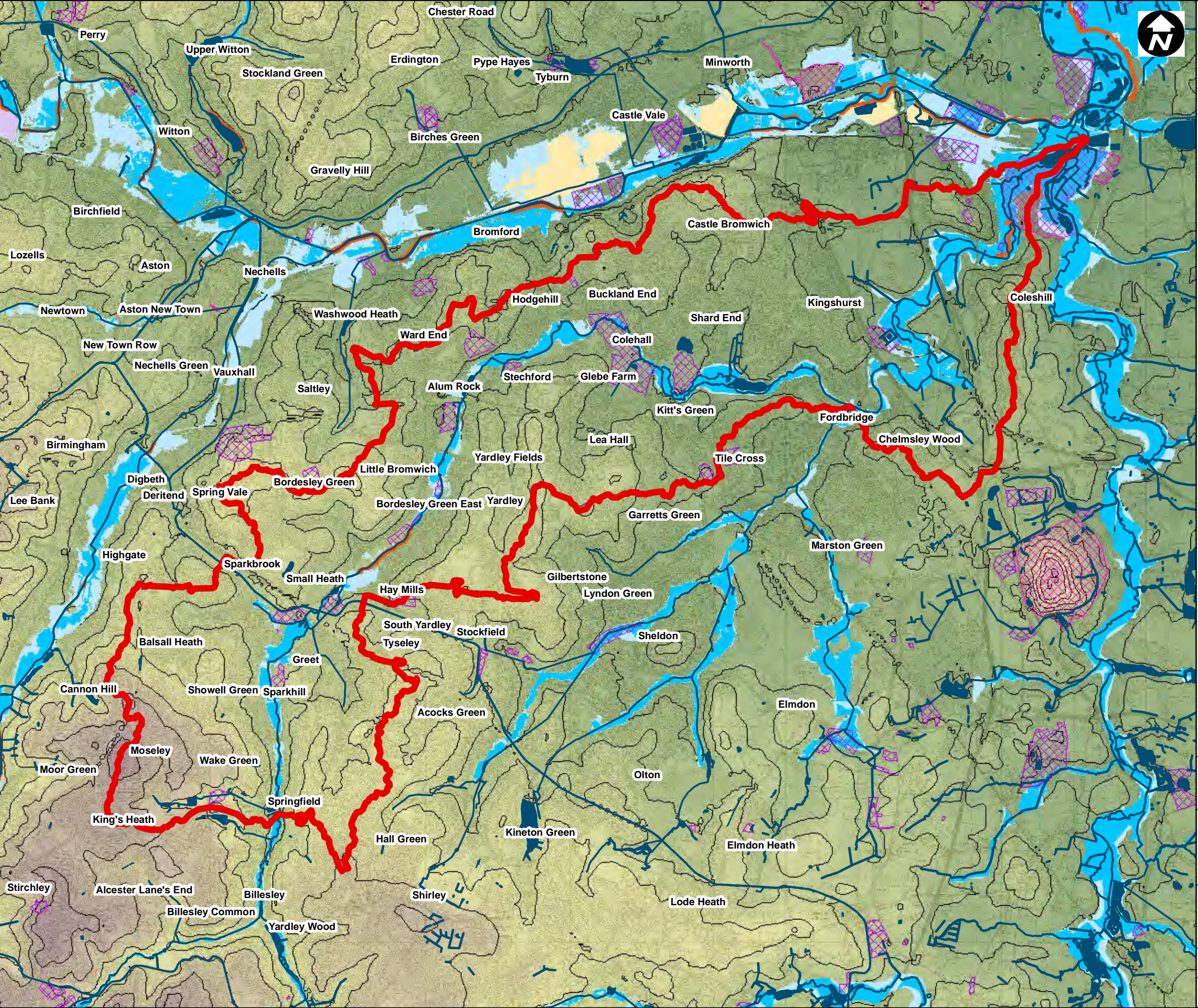
Supported by The National
Lottery Heritage Fund



Appendix A

Baseline Mapping



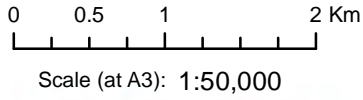


Cole Valley Catchment Landscape Vision

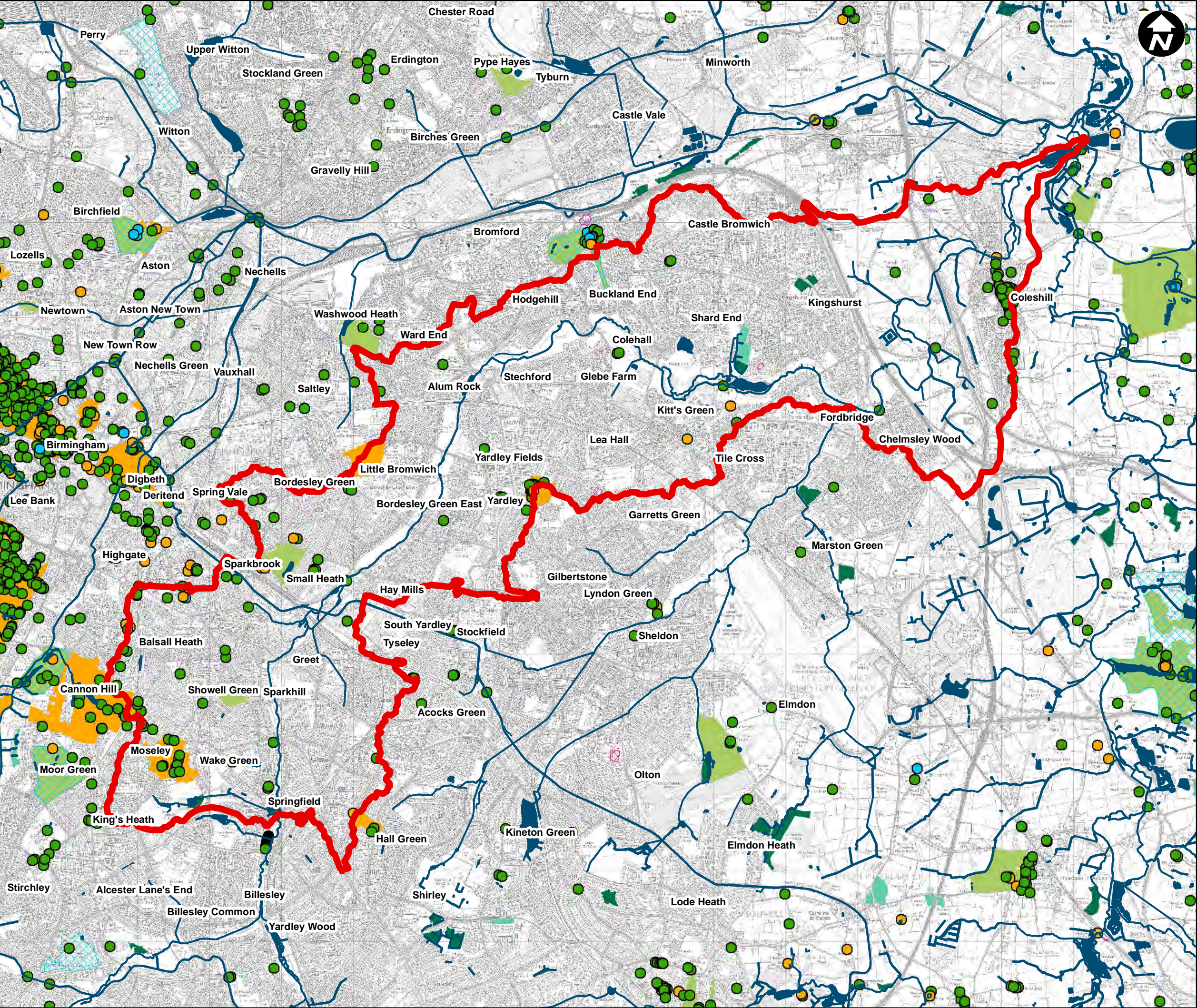
Topography and Drainage

- River Cole Catchment (Lower Waterbodies)
- Canal and River Corridor
- Waterbody
- Flood Defence
- Areas Benefitting from Flood Defences
- Flood Storage Area
- Authorised Landfill Site
- Historic Landfill Site
- Flood Zone 3 (1:100 chance)
- Flood Zone 2 (1:1,000 chance)
- 10m Contours
- 261.5m AOD
- 45.9m AOD

Notes:
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Status: S1	Purpose of issue: Issue	Rev: 3.0	Model File Identifier: N/A
Drawing number: CVCLV-ATK-00-XX-DR-L-00002	Drawn: 30/08/2019	Checked: 30/08/2019	Authorised: 30/08/2019

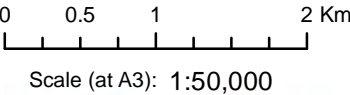


Cole Valley Catchment
Landscape Vision

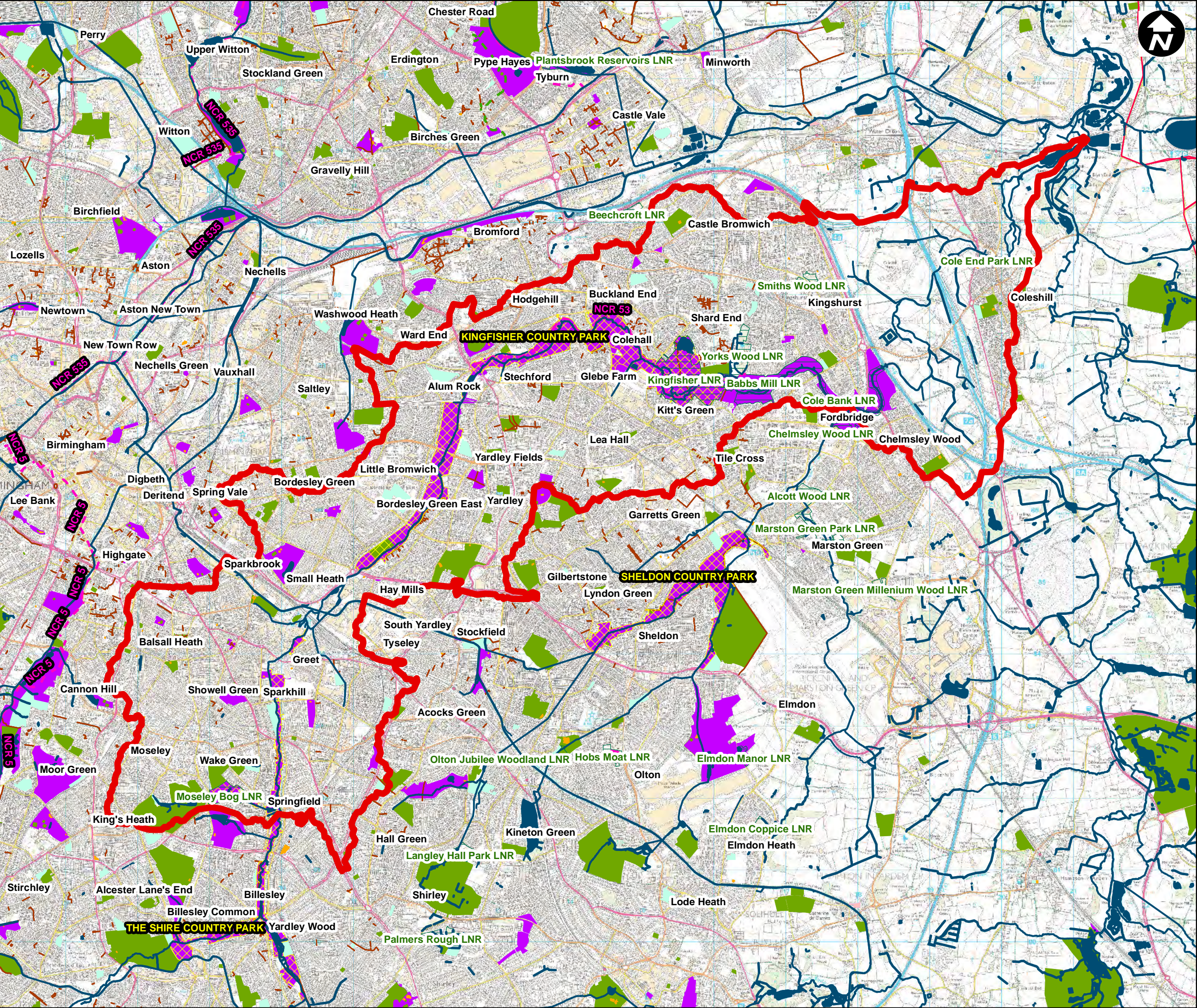
Heritage

- River Cole Catchment (Lower Waterbodies)
- Canal and River Corridor
- Waterbody
- Grade I Listed Building
- Grade II* Listed Building
- Grade II Listed Building
- Registered Park & Garden
- Scheduled Monument
- Ancient and Semi-Natural Woodland
- Planted Ancient Woodland Site
- Woodpasture and Parkland
- Conservation Area

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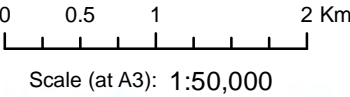


Cole Valley Catchment Landscape Vision

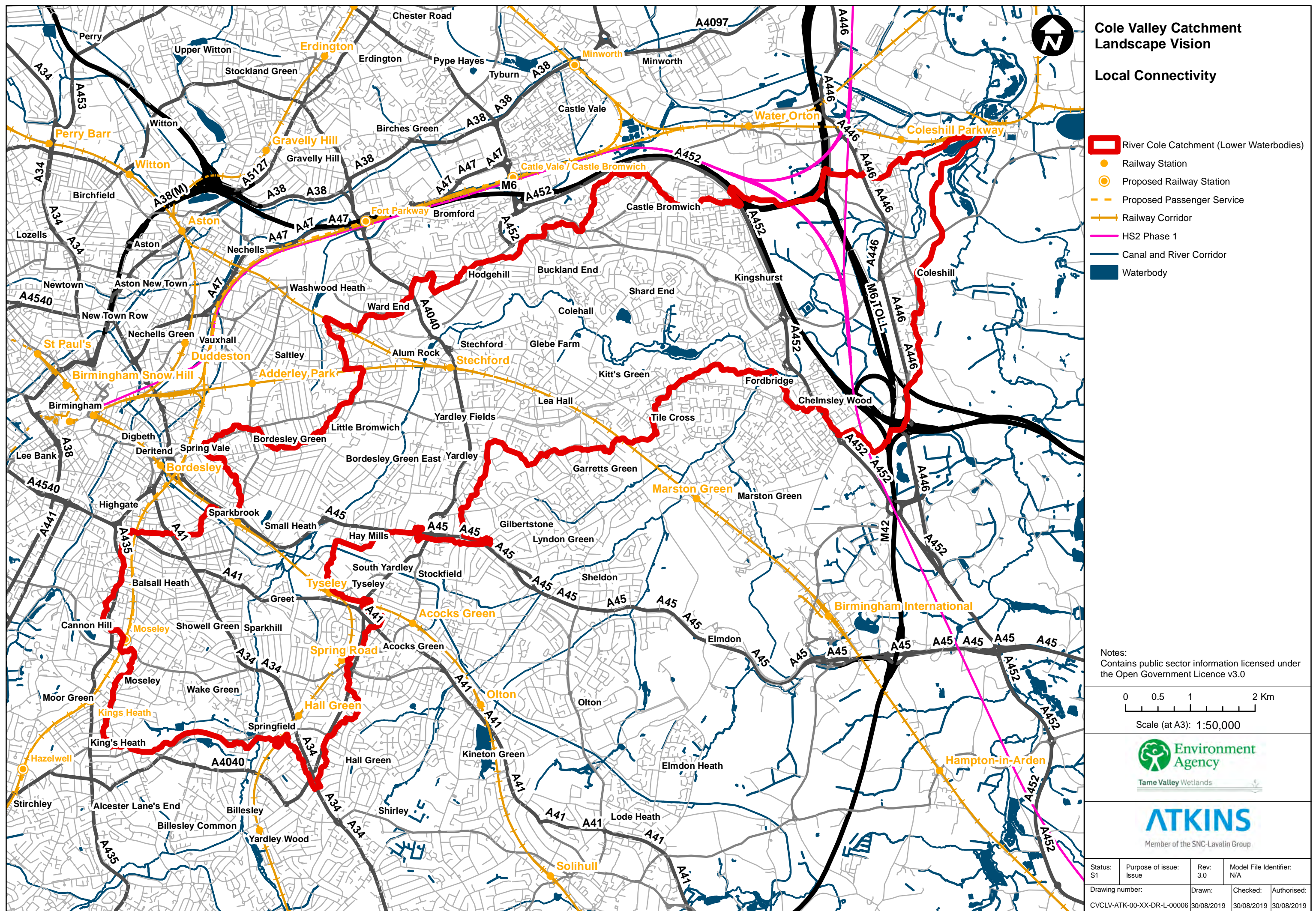
Accessibility

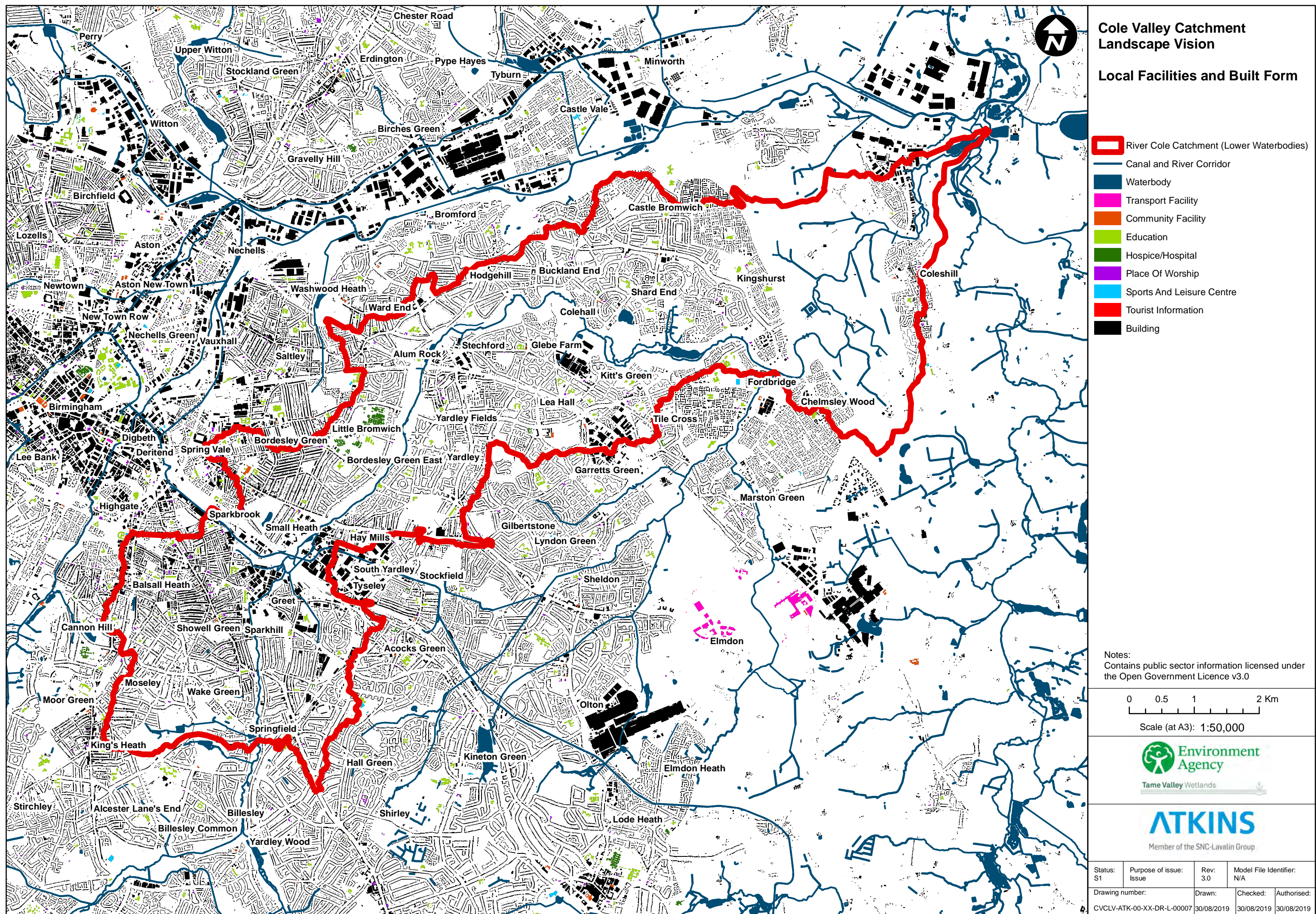
- River Cole Catchment (Lower Waterbodies)
- Canal and River Corridor
- Waterbody
- Sustrans National Cycle Route (NCR)
- Sustrans National Cycle Network Link
- Other Cycle Route
- Local Nature Reserve (LNR)
- Country Park
- Public Right of Way
- Common Land
- CRoW Access Land
- CRoW S15 Land
- Allotment / Growing Space
- Sports Pitch
- Play Space
- Public Park or Garden

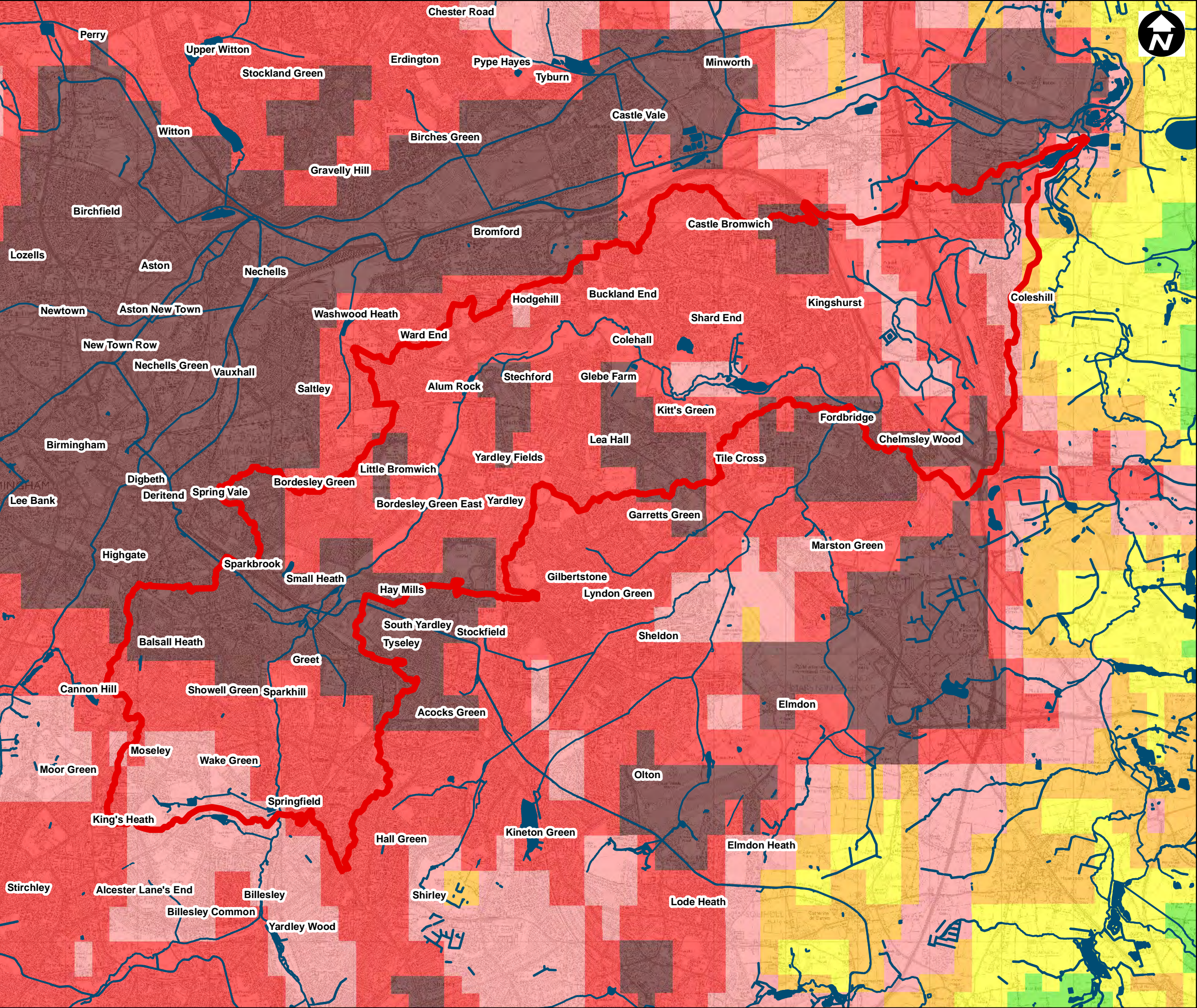
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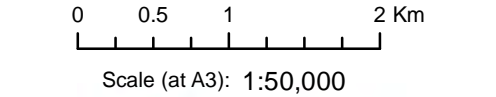


**Cole Valley Catchment
Landscape Vision**

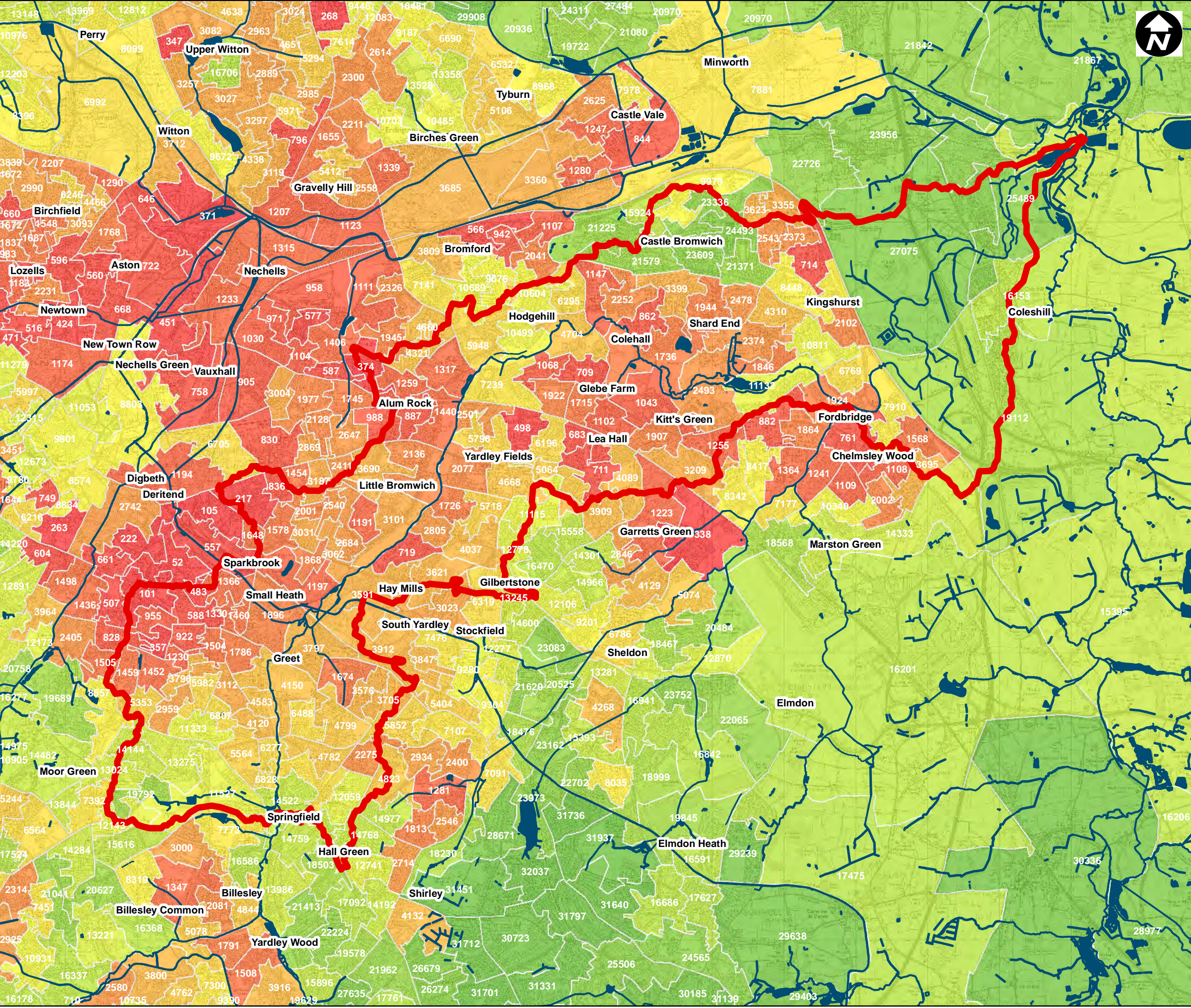
Dark Skies

- River Cole Catchment (Lower Waterbodies)
- Canal and River Corridor
- Waterbody
- >32 NanoWatts/cm2/sr (high)
- 16 - 32
- 8 - 16
- 4 - 8
- 2 - 4
- 1 - 2

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Dark Skies: Earth Observation Group, NOAA National Geophysical Data Center. Data processed by LUC on behalf of CPRE.



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Drawing number: CVCLV-ATK-00-XX-DR-L-00009	Drawn: 30/08/2019	Checked: 30/08/2019	Authorised: 30/08/2019



Cole Valley Catchment Landscape Vision

Index of Multiple Deprivation 2015 Rank

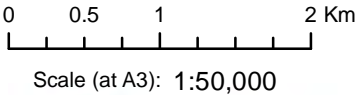
- River Cole Catchment (Lower Waterbodies)
- Canal and River Corridor
- Waterbody

The Index of Multiple Deprivation ranks each small area in England from 1 (most deprived area) to 32,844 (least deprived area).

The numbers shown illustrate the rank of each area within England whilst the colour represents the rank of each area within the geographic extent of the map (dark red most deprived, dark green least deprived).

More information can be found in the guidance note:
<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>

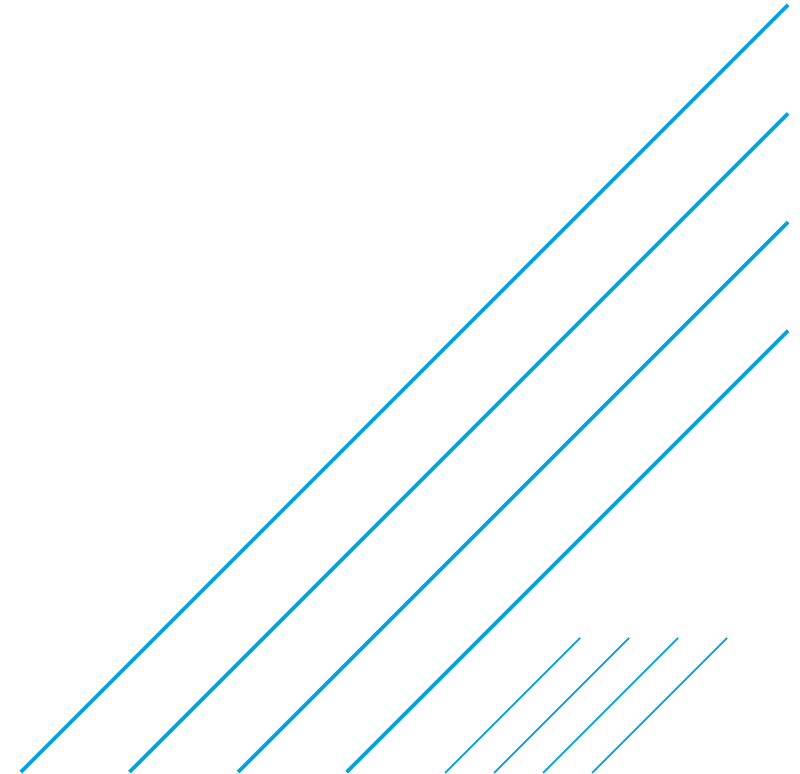
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Appendix B

Masterplan



Appendix B

The maps and associated attributes for each of the Opportunity Sites are presented over the following pages. The meaning of the attributes used in these tables are set-out below.

Priority Objective

Whilst other objectives and opportunities will exist at all locations, the focus for potential interventions on a specific site has been identified to enable the targeting of interventions where they will help achievement of the Vision and Strategic Objectives and to enable a lead stakeholder to be identified.

Objectives include:

- **Accessibility:** Improving site access at specific locations, taking into account matters such as the topography, ground conditions and the presence or need for of any steps/ ramps/handrails/gates.
- **Biodiversity:** The ecological value which could be improved by enhancing habitats.
- **Health and Wellbeing:** The potential benefit from improved exercise opportunities and access to fresh air and green spaces, which can have both physical and mental health benefits.
- **Interpretation:** Improving how easy it is to understand a space and what its purpose/ identity/history is.
- **Sense of place:** Improving the character of a space and how it relates to its surroundings, place specific proposals that provide or enhance local identity.
- **Wayfinding:** Improving the ease of navigation of the site through improved views, landmarks and signage.
- **Flood defence:** Opportunity to create/enhance flood defence within vulnerable areas.
- **Heritage:** Maintaining and enhancing the heritage of a site to enhance a sense of place and create more attractive and interesting places to visit.
- **Community:** Increasing the opportunity for communities to come together through easily accessible and usable spaces, whilst potentially creating opportunities for community participation.

Ease of Delivery

How easy will it be to deliver the objective and are there any barriers such as; difficult access, existing infrastructure, difficult topography or difficult ground conditions:

- **Easy:** No barriers to delivery.
- **Medium:** Some barriers, but not too difficult.
- **Hard:** Some difficult barriers to overcome.

Capital Cost

The cost it will take to deliver the objective:

- **Low:** Under £10,000
- **Medium:** £10,000-£100,000
- **High:** Above £100,000

Maintenance Implications

How will the maintenance be implicated as a result of delivering the objective:

- **Decrease:** The maintenance will be reduced as a result of the objective.
- **No Change:** No change to the level of maintenance though operations may be slightly different.
- **Increase:** Increased level of maintenance as a result of delivering the objective.

Time Horizon

How long it will take to deliver the objective:

- **Short:** 1-3 years
- **Medium:** 4-7 years
- **Long:** 8-10 years

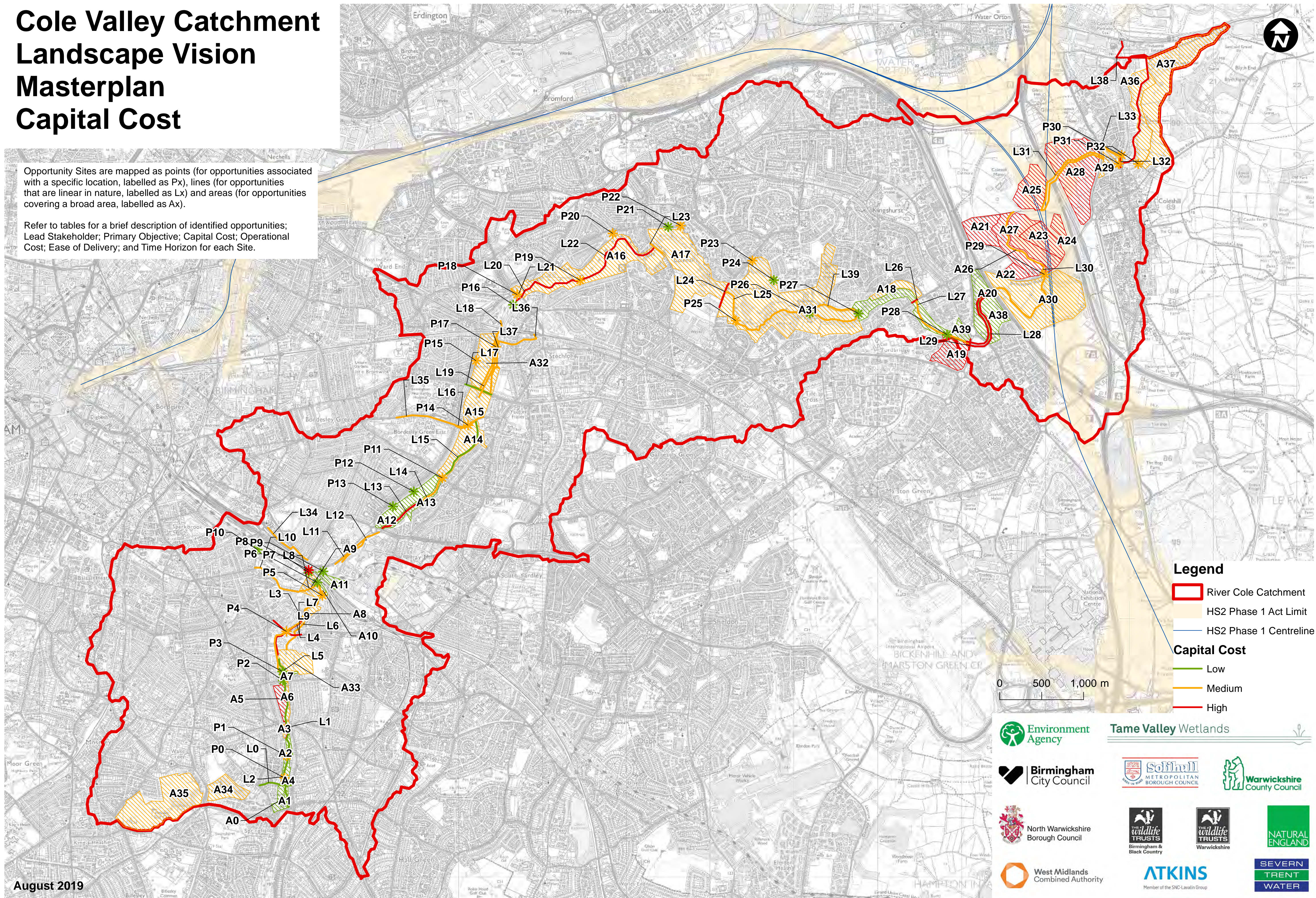
Lead Stakeholder

Who is best-placed to lead on coordination, funding or delivery of the primary objective and items described for each Opportunity Site.

Cole Valley Catchment Landscape Vision Masterplan Capital Cost

Opportunity Sites are 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).

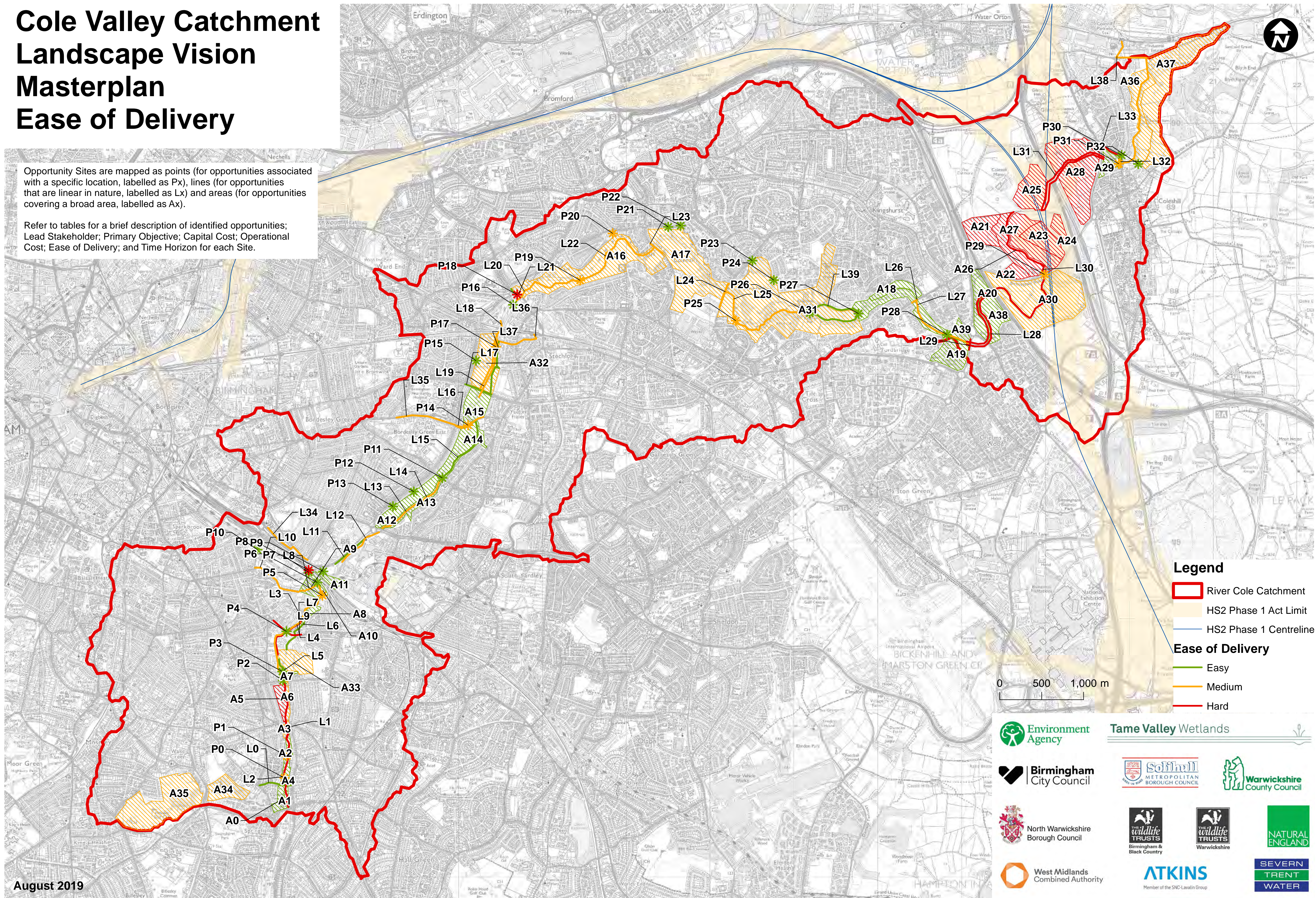
Refer to tables for a brief description of identified opportunities; Lead Stakeholder; Primary Objective; Capital Cost; Operational Cost; Ease of Delivery; and Time Horizon for each Site.



Cole Valley Catchment Landscape Vision Masterplan Ease of Delivery

Opportunity Sites are 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).

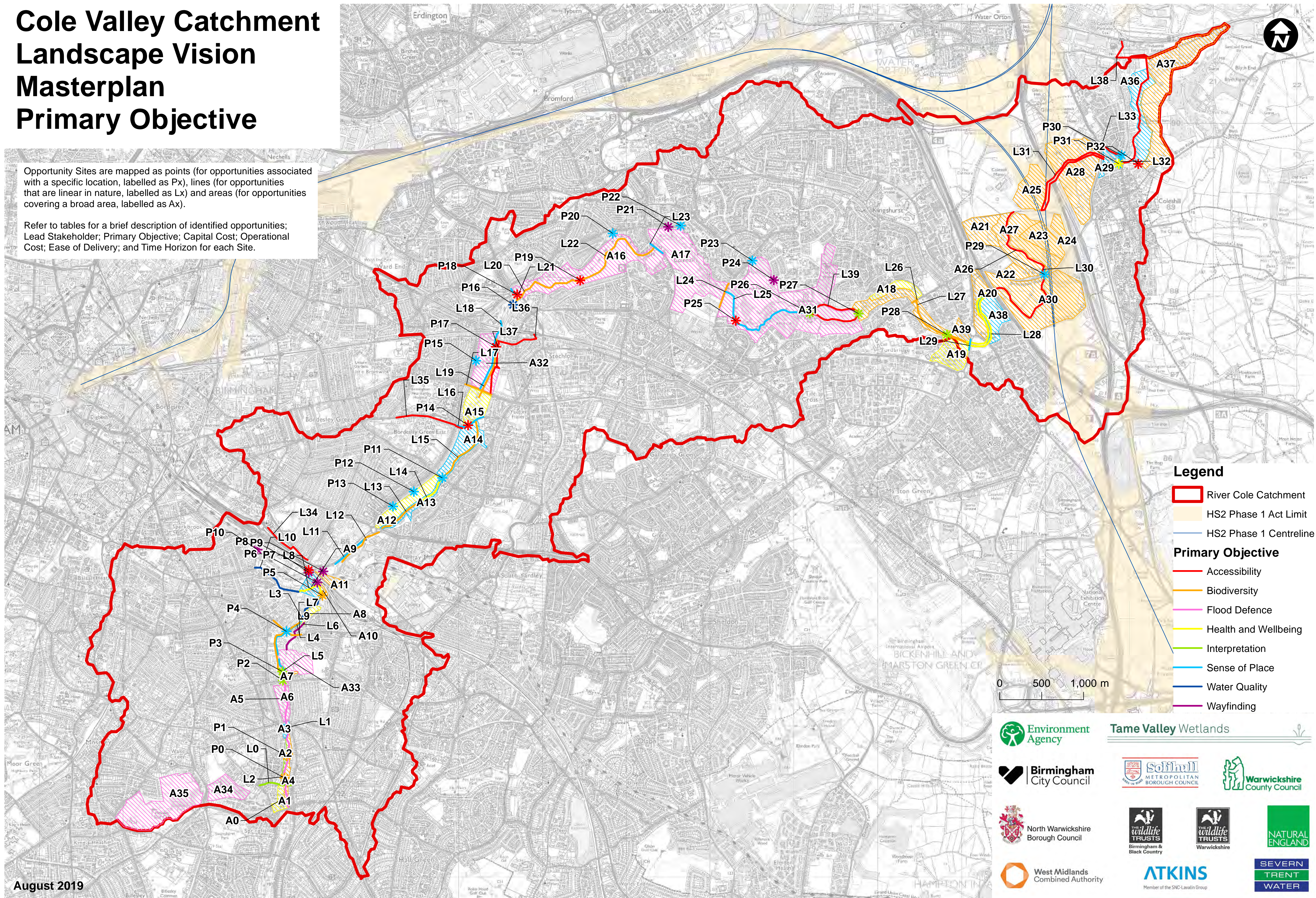
Refer to tables for a brief description of identified opportunities; Lead Stakeholder; Primary Objective; Capital Cost; Operational Cost; Ease of Delivery; and Time Horizon for each Site.



Cole Valley Catchment Landscape Vision Masterplan Primary Objective

Opportunity Sites are 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).

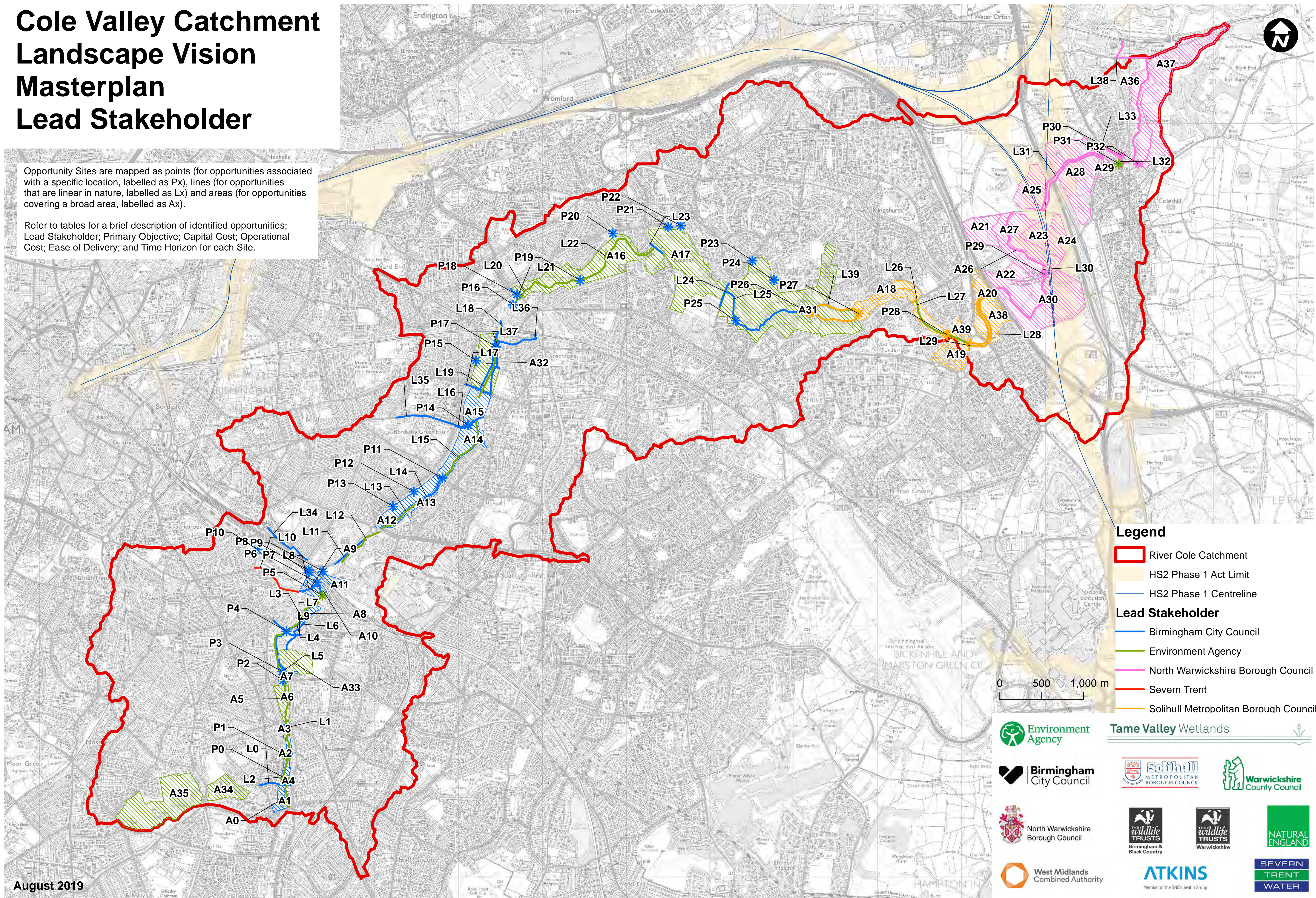
Refer to tables for a brief description of identified opportunities; Lead Stakeholder; Primary Objective; Capital Cost; Operational Cost; Ease of Delivery; and Time Horizon for each Site.



Cole Valley Catchment Landscape Vision Masterplan Lead Stakeholder

Opportunity Sites are 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).

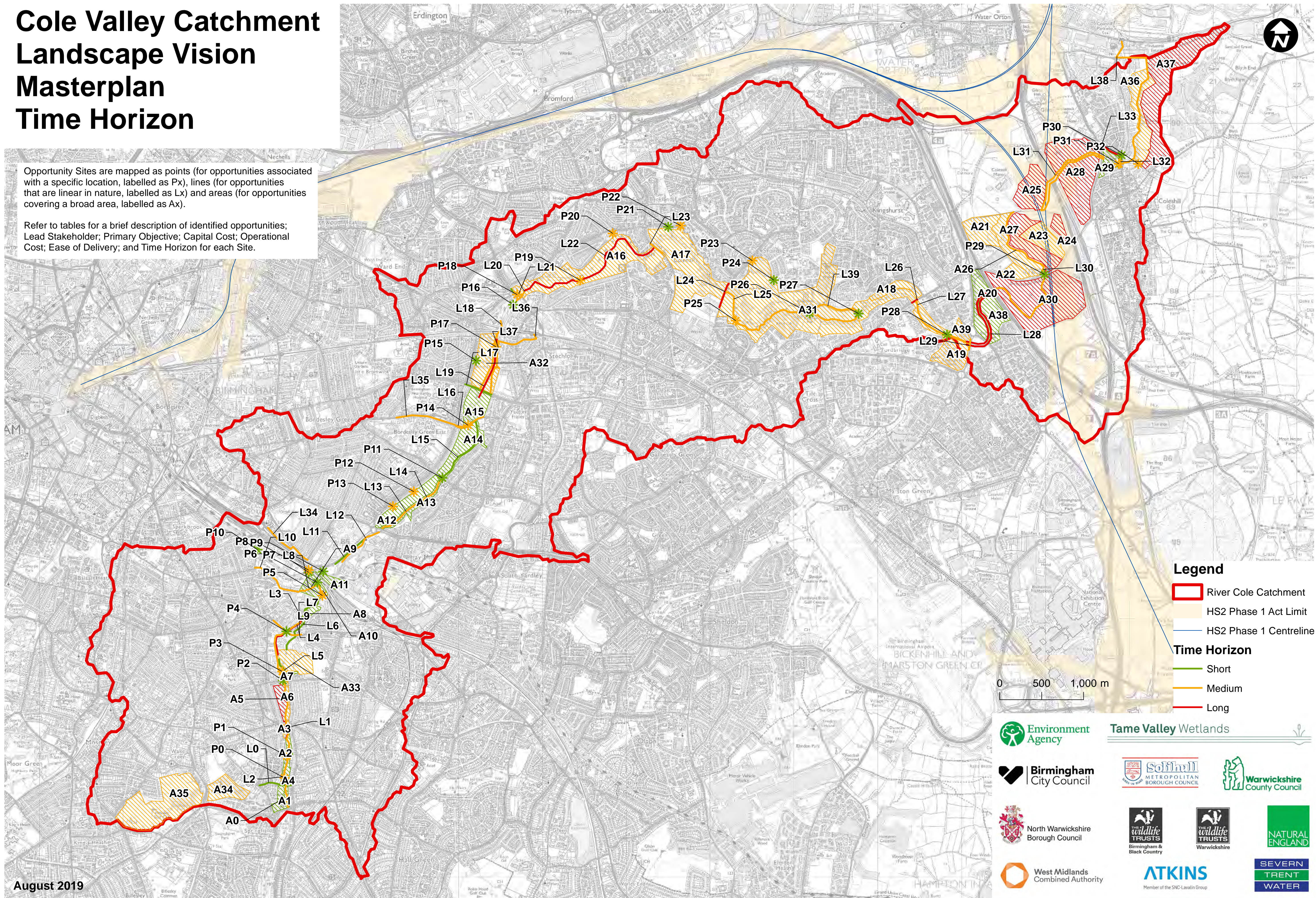
Refer to tables for a brief description of identified opportunities; Lead Stakeholder; Primary Objective; Capital Cost; Operational Cost; Ease of Delivery; and Time Horizon for each Site.



Cole Valley Catchment Landscape Vision Masterplan Time Horizon

Opportunity Sites are 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).

Refer to tables for a brief description of identified opportunities; Lead Stakeholder; Primary Objective; Capital Cost; Operational Cost; Ease of Delivery; and Time Horizon for each Site.



Appendix B

Opportunity Site Points

ID	Priority Objective	Description	Ease of Delivery	Capital Cost	Maintenance Implications	Time Horizon	Lead Stakeholder
P0	Biodiversity	Weir removal, retain some form of crossing?	Medium	Medium	Low	Medium	Environment Agency
P1	Biodiversity	Weir removal	Medium	Medium	Low	Medium	Environment Agency
P2	Interpretation	Interpretation/education about habitat/floods	Easy	Low	Low	Short	Birmingham City Council
P3	Interpretation	Interpretation about habitat/flood improvement	Easy	Low	Low	Medium	Birmingham City Council
P4	Sense of Place	Artwork indicating location of River Cole from A41	Easy	Medium	Low	Short	Birmingham City Council
P5	Biodiversity	Weir removal or fish pass	Medium	Medium	Low	Medium	Environment Agency
P6	Wayfinding	Wayfinding to assist with navigating canal/railway	Easy	Low	Low	Short	Birmingham City Council
P7	Wayfinding	Artwork/wayfinding for canal/river/local amenity	Easy	Low	Low	Short	Birmingham City Council
P8	Accessibility	Step free access to/from canal	Hard	High	Low	Medium	Birmingham City Council
P9	Wayfinding	Signage to indicate link to River Cole	Easy	Low	Low	Short	Birmingham City Council
P10	Wayfinding	Promote accessibility to River via canal	Easy	Low	Low	Short	Birmingham City Council
P11	Sense of Place	Gateway artwork alongside road corridor/crossing	Easy	Medium	Low	Short	Birmingham City Council
P12	Sense of Place	Feature, seating and interpretation	Easy	Low	Low	Medium	Birmingham City Council
P13	Sense of Place	Feature, seating and interpretation	Easy	Low	Low	Medium	Birmingham City Council
P14	Accessibility	Improve pedestrian priority at crossing	Medium	Medium	Low	Medium	Birmingham City Council
P15	Sense of Place	Gateway feature/artwork and interpretation	Easy	Medium	Low	Short	Birmingham City Council
P16	Water Quality	Connect waterbody to river	Easy	Low	Low	Short	Birmingham City Council
P17	Accessibility	Footbridge and paths to create circular route	Medium	Medium	Low	Medium	Birmingham City Council
P18	Accessibility	New crossing to create shorter route/avoid r-about	Hard	Medium	Low	Medium	Birmingham City Council
P19	Accessibility	Bridge to link to school/facilitate circular route	Medium	Medium	Low	Medium	Birmingham City Council
P20	Sense of Place	Gateway feature/artwork and interpretation	Medium	Medium	Low	Medium	Birmingham City Council
P21	Wayfinding	Wayfinding showing routes and biodiversity	Easy	Low	Low	Short	Birmingham City Council
P22	Sense of Place	Gateway feature/artwork and interpretation	Easy	Medium	Low	Medium	Birmingham City Council
P23	Sense of Place	Gateway feature/artwork linking to River Cole	Easy	Medium	Low	Medium	Birmingham City Council
P24	Wayfinding	Wayfinding showing routes and biodiversity	Easy	Low	Low	Short	Birmingham City Council
P25	Accessibility	Create footbridge over river for circular route	Medium	Medium	Low	Medium	Birmingham City Council
P26	Interpretation	Focus on heritage and biodiversity information	Easy	Low	Low	Short	Solihull Metropolitan Borough Council
P27	Interpretation	Focus on heritage and biodiversity information	Easy	Low	Low	Short	Solihull Metropolitan Borough Council
P28	Interpretation	River and biodiversity information	Easy	Low	Low	Short	Solihull Metropolitan Borough Council
P29	Sense of Place	Artwork visible to drivers along Birmingham Road	Medium	Medium	Low	Short	North Warwickshire Borough Council
P30	Sense of Place	Artwork and interpretation around road junction	Easy	Medium	Low	Short	North Warwickshire Borough Council
P31	Health and Wellbeing	Bank reprofiling and ford for waterside access	Medium	Medium	Low	Medium	Environment Agency
P32	Accessibility	Improve quality, width and accessibility of bridge	Easy	Medium	Low	Medium	North Warwickshire Borough Council

Appendix B

Opportunity Site Lines

ID	Priority Objective	Description	Ease of Delivery	Capital Cost	Maintenance Implications	Time Horizon	Lead Stakeholder
L0	Interpretation	Signage and interpretation of the ford	Easy	Low	Low	Short	Birmingham City Council
L1	Sense of Place	Remove retaining structures, re-grade river banks	Hard	High	Medium	Long	Environment Agency
L2	Flood Defence	'En-main' River Cole EA from BCC, swap with other	Hard	Low	Low	Medium	Environment Agency
L3	Sense of Place	Create riverside walk	Hard	High	Medium	Long	Birmingham City Council
L4	Biodiversity	Soften hard river edges	Medium	Medium	Medium	Medium	Environment Agency
L5	Sense of Place	Improve surfacing to increase accessibility	Easy	Low	Low	Short	Birmingham City Council
L6	Wayfinding	Improve signage and amenity away from river	Easy	Medium	Low	Short	Birmingham City Council
L7	Biodiversity	A41 narrowing, green central verge, GI retrofit	Hard	High	Medium	Medium	Birmingham City Council
L8	Health and Wellbeing	Facilitate access to water edge for education/play	Medium	Medium	Medium	Medium	Birmingham City Council
L9	Water Quality	Clear river of debris, habitat management	Medium	Medium	Low	Short	Environment Agency
L10	Water Quality	Fix missed connections and other quality issues	Medium	Medium	Low	Medium	Severn Trent
L11	Sense of Place	Vegetative screening of A45	Easy	Medium	Medium	Short	Birmingham City Council
L12	Biodiversity	River channel improvements	Medium	Medium	Low	Medium	Environment Agency
L13	Biodiversity	River re-alignment and bank re-profiling	Medium	High	Low	Medium	Environment Agency
L14	Health and Wellbeing	River access and dipping areas for use by schools	Medium	Medium	Low	Medium	Birmingham City Council
L15	Biodiversity	Habitat improvement	Easy	Low	Low	Short	Environment Agency
L16	Sense of Place	Improve quality of parking arrangement	Medium	Medium	Low	Medium	Birmingham City Council
L17	Biodiversity	Wildflower planting along central reserve	Easy	Low	Low	Short	Birmingham City Council
L18	Sense of Place	Accessible route along river and under railway	Medium	Medium	Low	Medium	Birmingham City Council
L19	Biodiversity	Re-alignment/channel improvement/bank re-profiling	Medium	Medium	Low	Long	Environment Agency
L20	Biodiversity	Remove retaining structures, re-grade river banks	Medium	High	Medium	Medium	Environment Agency
L21	Sense of Place	Improved frontage to A4040	Easy	Medium	Medium	Short	Birmingham City Council
L22	Biodiversity	Re-alignment/channel improvement/bank re-profiling	Medium	High	Medium	Long	Environment Agency
L23	Sense of Place	Artwork/interpretation along Cole Hall Lane	Medium	Medium	Low	Medium	Birmingham City Council
L24	Biodiversity	Green central reserve along Lea Ford Road	Medium	High	Medium	Long	Birmingham City Council
L25	Sense of Place	Facilitate access to water edge for education/play	Medium	Medium	Low	Medium	Birmingham City Council
L26	Biodiversity	Green central reserve along Cooks Lane	Medium	High	Medium	Long	Solihull Metropolitan Borough Council
L27	Biodiversity	Re-alignment/channel improvement/bank re-profiling	Medium	Medium	Medium	Medium	Environment Agency
L28	Health and Wellbeing	Circular accessible/cycle route around River	Hard	High	Low	Long	Solihull Metropolitan Borough Council
L29	Sense of Place	Green the painted verges along Moorend Avenue	Hard	High	Medium	Medium	Solihull Metropolitan Borough Council
L30	Accessibility	Create new right of way along River Cole	Hard	Medium	Medium	Medium	North Warwickshire Borough Council
L31	Accessibility	Create new right of way along River Cole	Hard	Medium	Medium	Medium	North Warwickshire Borough Council
L32	Sense of Place	New footbridge to enhance setting of monument	Medium	High	Low	Medium	North Warwickshire Borough Council
L33	Accessibility	Improve parking and road safety	Hard	Medium	Low	Long	North Warwickshire Borough Council
L34	Accessibility	Cycle route link to Small Heath Park and Station	Medium	Medium	Low	Medium	Birmingham City Council
L35	Accessibility	Cycle route link to Hospital and local schools	Medium	Medium	Low	Medium	Birmingham City Council
L36	Accessibility	Cycle route link to Stechford Station	Medium	Medium	Low	Medium	Birmingham City Council
L37	Accessibility	Cycle route along east bank to residential area	Easy	Medium	Low	Medium	Birmingham City Council
L38	Accessibility	Cycle route along river to Coleshill Parkway	Medium	High	Low	Medium	North Warwickshire Borough Council
L39	Accessibility	Accessible circular route around Babbs Mill Lake	Easy	Medium	Low	Medium	Solihull Metropolitan Borough Council

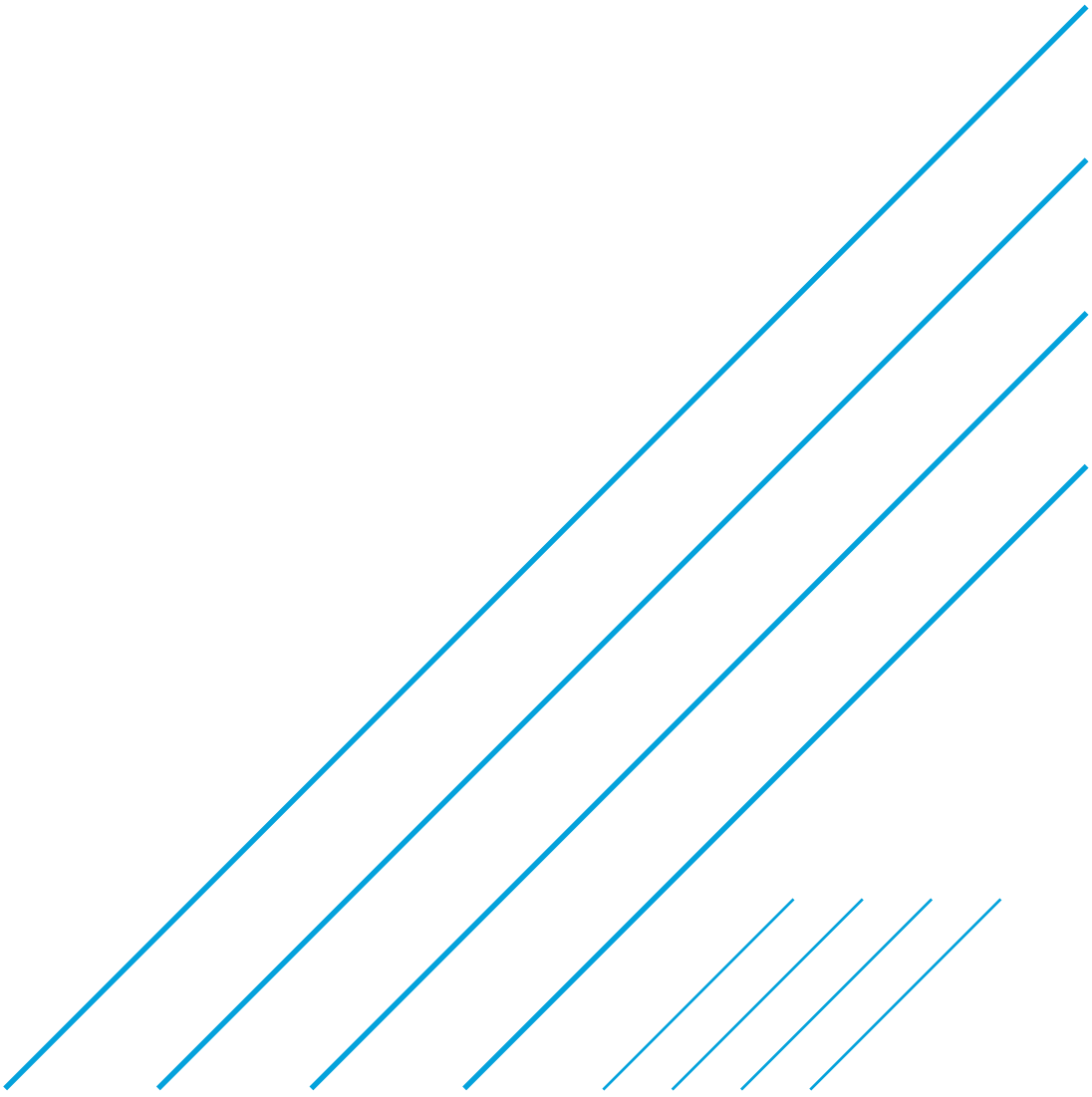
Appendix B

Opportunity Site Areas

ID	Priority Objective	Description	Ease of Delivery	Capital Cost	Maintenance Implications	Time Horizon	Lead Stakeholder
A0	Health and Wellbeing	Creation of a River Cole Hub	Easy	Low	Medium	Short	Birmingham City Council
A1	Biodiversity	Habitat management	Easy	Low	Low	Short	Birmingham City Council
A2	Interpretation	River and biodiversity interpretation, bird hides	Easy	Low	Low	Short	Birmingham City Council
A3	Sense of Place	Gateway features, crossing, parking, furniture	Medium	Medium	Low	Medium	Birmingham City Council
A4	Biodiversity	Habitat management	Easy	Low	Low	Short	Birmingham City Council
A5	Flood Defence	Flood embankment around allotments	Hard	High	Low	Long	Environment Agency
A6	Flood Defence	Creation of overflow pools with habitat	Medium	Medium	Low	Medium	Environment Agency
A7	Biodiversity	Woodland planting and slow run-off	Easy	Low	Low	Short	Birmingham City Council
A8	Health and Wellbeing	Natural play features and health walk route	Easy	Medium	Low	Short	Birmingham City Council
A9	Sense of Place	Management, interpretation, school engagement	Easy	Medium	Medium	Short	Birmingham City Council
A10	Biodiversity	Habitat management	Easy	Low	Low	Short	Birmingham City Council
A11	Biodiversity	Habitat management	Easy	Low	Low	Short	Birmingham City Council
A12	Health and Wellbeing	Waymarked health walks, arrange Park Run?	Easy	Low	Low	Short	Birmingham City Council
A13	Sense of Place	Habitat management/views to river/flood storage	Easy	Low	Low	Short	Birmingham City Council
A14	Sense of Place	Wayfinding/habitat management/flood storage	Easy	Medium	Medium	Short	Birmingham City Council
A15	Health and Wellbeing	Wayfinding/habitat management/flood storage	Easy	Medium	Medium	Short	Birmingham City Council
A16	Flood Defence	Flood storage area and habitat management	Medium	Medium	Low	Medium	Environment Agency
A17	Flood Defence	Flood storage area and habitat management	Medium	Medium	Low	Medium	Environment Agency
A18	Health and Wellbeing	Natural play features and health walk route	Easy	Medium	Low	Medium	Solihull Metropolitan Borough Council
A19	Health and Wellbeing	Creation of Hub/greenspace uplift/flood storage	Easy	High	Medium	Medium	Solihull Metropolitan Borough Council
A20	Biodiversity	Habitat management	Easy	Low	Low	Short	Solihull Metropolitan Borough Council
A21	Biodiversity	Woodland creation	Hard	High	High	Medium	North Warwickshire Borough Council
A22	Biodiversity	Woodland creation	Hard	High	High	Medium	North Warwickshire Borough Council
A23	Biodiversity	Woodland creation	Hard	High	High	Medium	North Warwickshire Borough Council
A24	Biodiversity	Woodland creation	Hard	High	High	Long	North Warwickshire Borough Council
A25	Biodiversity	Woodland creation	Hard	High	High	Long	North Warwickshire Borough Council
A26	Biodiversity	Riparian habitat creation	Hard	High	High	Medium	North Warwickshire Borough Council
A27	Biodiversity	Riparian habitat creation	Hard	High	High	Long	North Warwickshire Borough Council
A28	Biodiversity	Woodland and other habitat creation	Hard	High	High	Long	North Warwickshire Borough Council
A29	Sense of Place	Cole End Park open space improvements	Easy	Medium	Medium	Short	North Warwickshire Borough Council
A30	Biodiversity	Improve habitat and strengthen hedgerows	Medium	Medium	Medium	Long	North Warwickshire Borough Council
A31	Flood Defence	Create flood storage area	Medium	Medium	Low	Medium	Environment Agency
A32	Flood Defence	Create flood storage area	Medium	Medium	Low	Medium	Environment Agency
A33	Flood Defence	Create flood storage area	Medium	Medium	Low	Medium	Environment Agency
A34	Flood Defence	Create flood storage area	Medium	Medium	Low	Medium	Environment Agency
A35	Flood Defence	Create flood storage area	Medium	Medium	Low	Medium	Environment Agency
A36	Sense of Place	Improve access and amenity along river corridor	Medium	Medium	Medium	Medium	North Warwickshire Borough Council
A37	Biodiversity	Biodiversity enhancement following mineral works	Medium	Medium	Medium	Long	North Warwickshire Borough Council
A38	Sense of Place	Tree planting, interpretation, paths, meadows	Easy	Low	Low	Short	Solihull Metropolitan Borough Council
A39	Biodiversity	Habitat management and creation	Easy	Low	Low	Medium	Solihull Metropolitan Borough Council

Appendix C

Case Study Site Proposals



Introduction to Case Study Sites

Within this report a selection of parks and public open spaces have been identified for improvement in line with the River Cole Vision, these include:

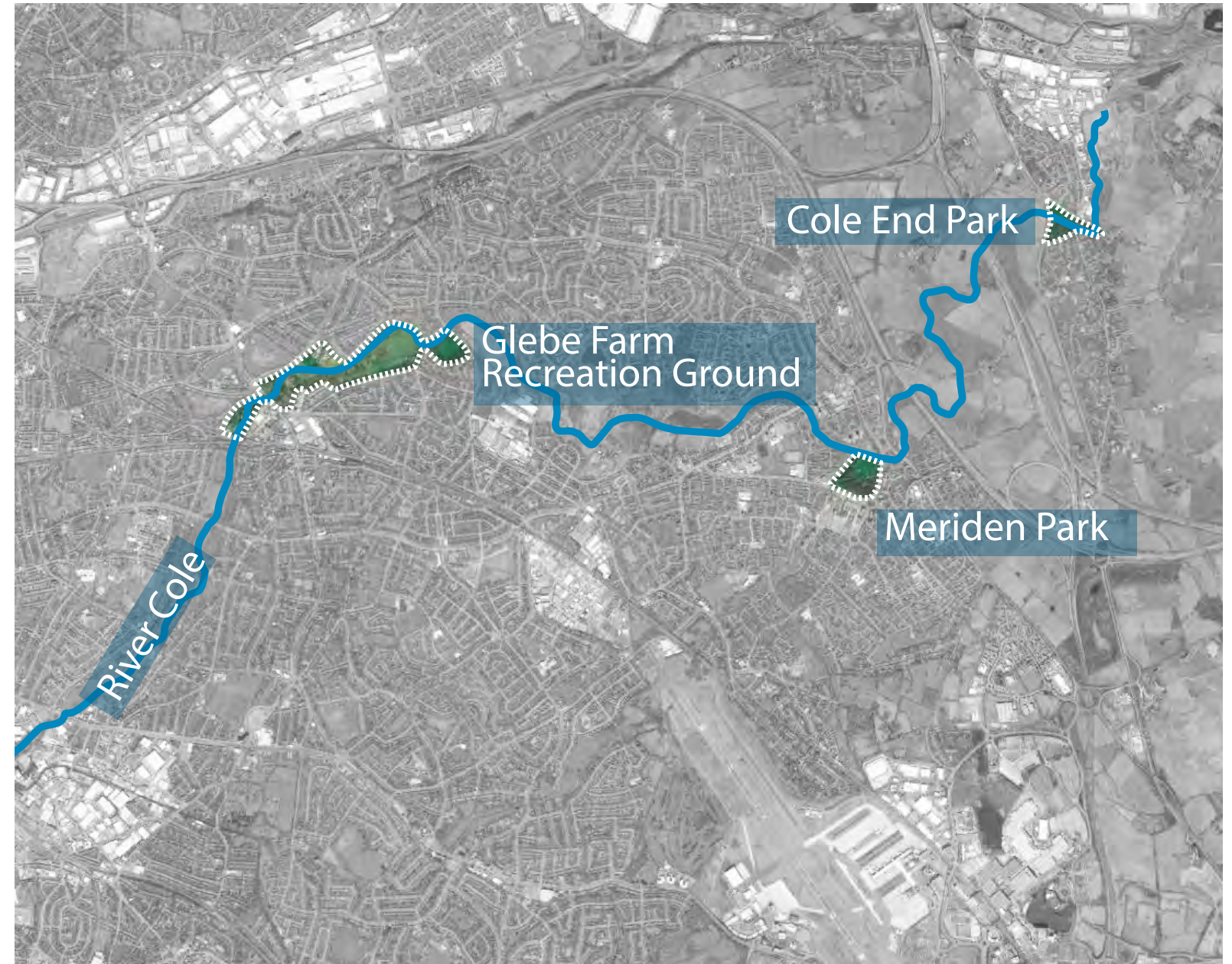
- Cole End Park;
- Glebe Farm Recreation Ground; and
- Meriden Park

Following a number of site visits to these locations, attended by representatives from North Warwickshire Borough Council, The Environment Agency, Warwickshire Wildlife Trust, Warwickshire County Highways and Atkins, this report has been compiled to provide focus on proposed interventions within the parks and public open spaces. The interventions proposed aim to be the most appropriate/valuable, in line with the objectives outlined in the River Cole Vision objectives and masterplan. Guidance is also provided which describes the cost of such interventions to inform prioritisation and implementation feasibility.

The initial assessments for identifying potential improvements have been undertaken at Meriden Park and Cole End Park by Solihull Metropolitan Borough Council and North Warwickshire Borough Council respectively, and some of the improvements have since been implemented. Other proposed improvements, along with recent suggestions, formed the topics of conversation during further site visits.

These sites fall within the Action Zones listed below:

- Glebe Farm Recreation Ground: Action Zone 4: A45 Coventry Road to Packington Avenue.
- Meriden Park: Action Zone 5: Packington Avenue to Kingshurst Brook.
- Cole End Park: Action Zone 6: Kingshurst Brook to River Blythe.



Glebe Farm Recreation Ground

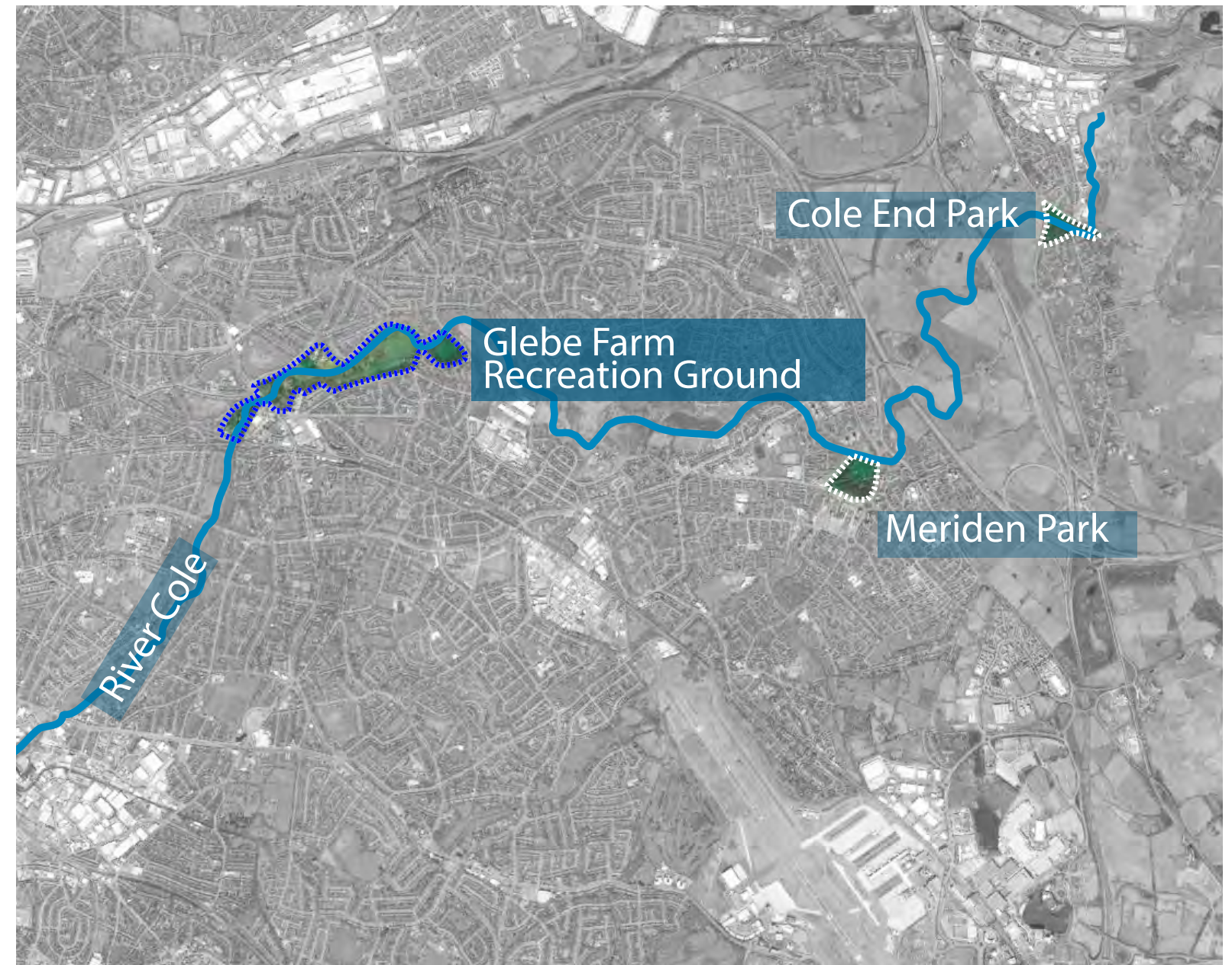
Introduction

Glebe Farm Recreation Ground is located along the River Cole east of Birmingham City Centre. The grounds lie between the districts of Shard End and Hodge Hill to the east and west respectively, and south of the M6. Directly around the site are residential streets including Maryland Avenue to the north, Cole Hall Lane to the east and Wyndhurst Road to the south.

Currently the recreational grounds offer some recreational activities including play equipment for both older and younger years, a youth shelter, and, an area for multi-use games. There is also a car park for Glebe Farm Recreation Ground which leads off to the north of Glebe Farm Road. The recreational grounds are also part of the wider Kingfisher Country Park and is considered as part of a linear walking route along the Cole Valley.

Along the north of the recreational grounds Cole Valley Cycle Route runs from west to east. This route is part of the beginning of National Cycle Route 53, which provides an off-road route along the River Cole and ending around Babbs Mill Lake.

Other facilities of note which lie directly adjacent to the site are Colebourne Primary School and Ward End Cricket Club to the north west and Yardley and District Rugby Football Club to the far east of the grounds.



Glebe Farm Recreation Ground

Site description

Several entrances to the recreational grounds exist, some of which have been formalised with hard surfacing, others are desire lines such as those running east in to the park from Rockland Drive. A wide pedestrian entrance is located to the west of the recreational grounds which has information boards and an occasional vehicular access point. This access lies just off the A4040 roundabout that meets Burney Lane and Cotterills Lane.

Off the other formalised entrances is a parking area for the recreational grounds which lies to the northern end of Glebe Farm Road. The parking consists of approximately 10 parking bays, 2 of which have accessible markings. Currently pedestrian transit across the river is facilitated by a bridge running directly north south on the far east side of the grounds and close to Cole Hall Lane bridge.

The River Cole runs through the centre to the northern side of the Glebe Farm Recreation Ground. The river varies slightly in width and depth with exposed muddy, silty and rocky banks and small islands. The banks of the river are grassy and vegetated with both young to mature trees, as well as scrub species. Banks of the river vary in steepness within the recreational grounds, so accessibility varies. Where banks are steepest muddy bank edges have created potential kingfisher nests. A culvert joins the River Cole within the park, running from an industrial estate between Brook Close and Myers Drive. Fly tipping and rubbish are notable throughout the recreational grounds and visually has a notably strong effect on river quality.

Generally grasses are left taller and trees and scrub create a wide dense to sparse buffer along the edge of the river of approximately 10 - 20m. These grassy and scrubby areas, especially towards the west and around the river, provide some wildlife benefits. Woody debris and rocky islands here also have ecological value.

Denser tree cover and under-story vegetation along the waters edge is especially prominent towards the far eastern edge of the recreational ground. A large area of amenity grassland is central in the recreational grounds with little to no tree cover. A mowing regime was evident which creates wide loop pathways around the outer edge of the amenity grass area.

Aside from the parks open spaces, walking and cycling amenities, there is a fenced playground area within the recreational grounds with play equipment for younger ages, and an area with trim trail type items typically for older ages. Also contained within this area is a tarmacked area with skate park ramps, and a netball pitch with surrounding fencing. A field to the east of the recreational grounds has football posts and is associated with the Yardley and District Rugby Football Club.



Image across the River Cole within Glebe Farm Recreation Ground

Glebe Farm Recreation Ground

Site analysis



Glebe Farm Recreation Ground

Site appraisal

Opportunities, constraints and proposed interventions:

Constraints:

- 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.

Non specific interventions:

- Removal of the Japanese Knotweed.
- Regular maintenance, min 6-8 grass cuttings in the season in identified areas.
- Parkland zone and habitat zone with different maintenance requirements.
- Creating access to the river in places where river banks are low.
- Creating management plan with long term maintenance regime.

Opportunities and proposed interventions:

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



Glebe Farm Recreation Ground

Photographic survey



1 Entrance in the park from Wyndhurst Road.



2 Image from the edge of the River bank towards the entrance on Wyndhurst Road.



3 Image looking towards the entrance on Glebe Farm Road.



4 Image looking north along the River.

Glebe Farm Recreation Ground

Photographic survey



Image towards the edge of the River bank illustrating Japanese Knotweed planting - proposed to be removed.



Image showing the River banks.



Basketball court, parking and play area in the east of the park.



Image looking west across amenity grass area from south east of the park.

Glebe Farm Recreation Ground

Photographic survey



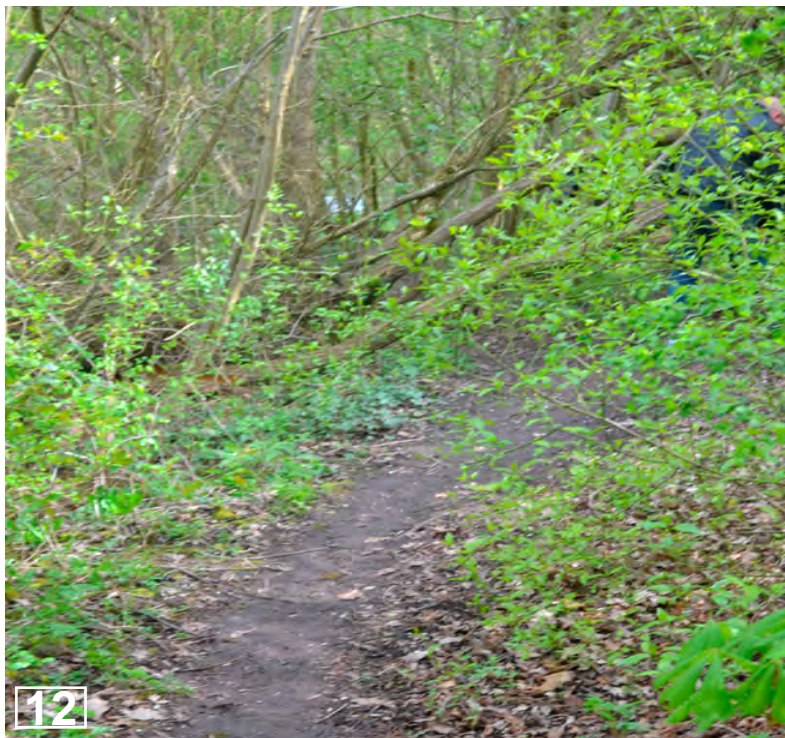
9 Play area in the east of the park.



10 Image towards the east woodland.



11 Image towards the north east edge of the river.



12 Footpath in the woodland area east of the park.



13 Footpath in the woodland area east of the park.



Glebe Farm Recreation Ground

Photographic survey



14 Rugby field in the east of the park.



15 Image near the western part of the park on Wyndhurst Road.



16 Image towards the residential properties along west part of Wyndhurst Road.



17 Image from the footpath behind residential area on Rockland Drive.

Glebe Farm Recreation Ground

Proposed masterplan & interventions

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.

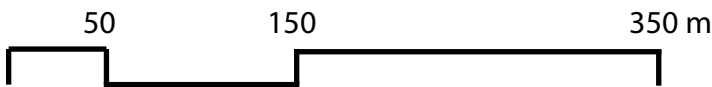
Potential flood storage areas

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

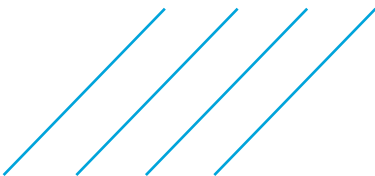


Glebe Farm Recreation Ground

Vision of annual and perennial meadows at 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.



Glebe Farm Recreation Ground

Precedent images



©CC2.0 Robin Stott, Geograph

Example of proposed surfaced loop around the park (accessibility, cycling, walking.)



©CC2.0 Richard Gillin, Flickr

Example of wildflower meadows.



©CC2.0 Bill Kasman, Geograph

Offer new pedestrian river crossing.



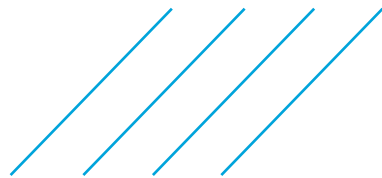
©CC2.0 Jay, Flickr

Example of naturalistic seating proposed along the main path.



©CC2.0 Gerry Dincher, Flickr

Encourage picnicking.

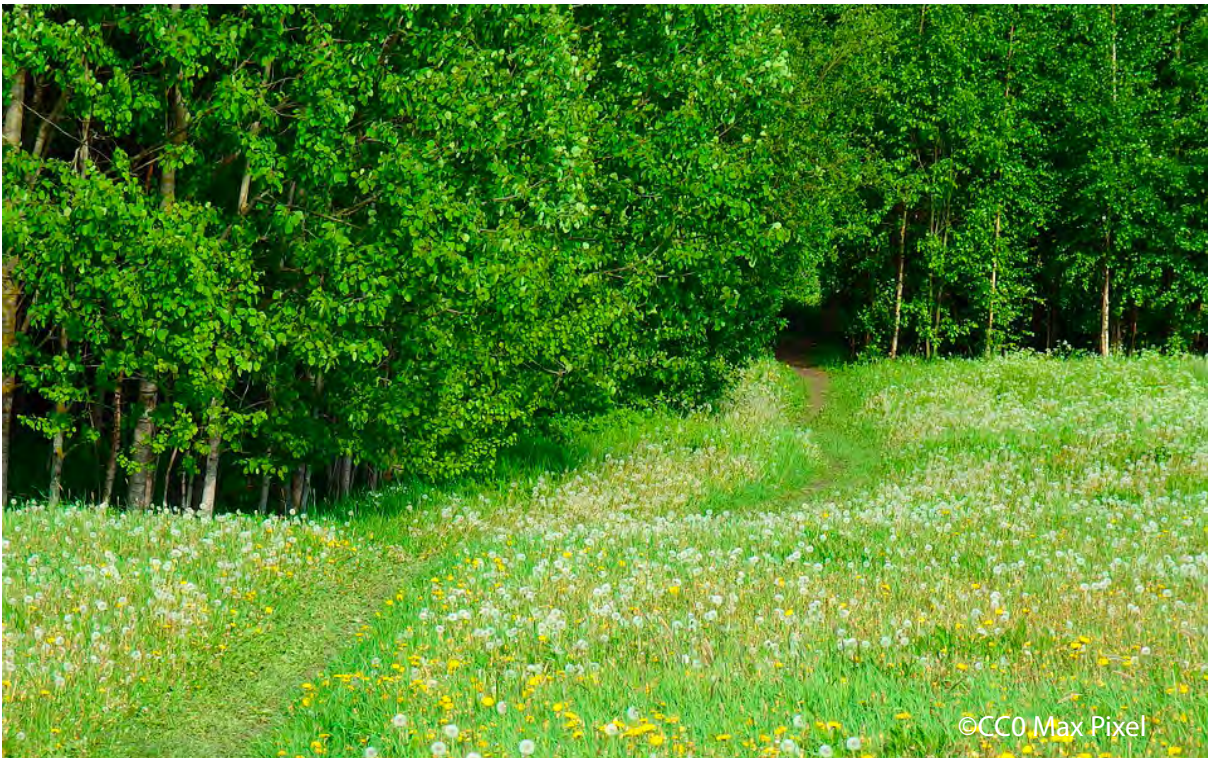


Glebe Farm Recreation Ground

Precedent images



Introduce shallower banks where appropriate to create better opportunities to access the river.



Use maintenance regime to encourage adventure.



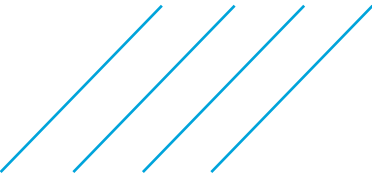
Create information boards for reference and education.



Transforming local woodland and river banks in to nature trails.



Offering challenging naturalistic play opportunity.



Glebe Farm Recreation Ground

Cost Estimate

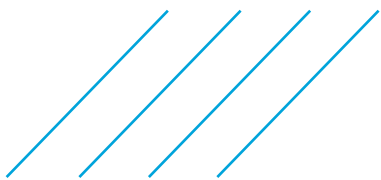
An indicative cost estimate has been produced on the basis of the proposed masterplan.

The overall estimate for works at Glebe Farm Recreation Ground is £985,620.58.

The build-up for this estimate is provided opposite and is based upon the following assumptions and exclusions:

- Removal of Japanese Knotweed excluded
- Connections to the wider area excluded
- Removal of fly tipped material is excluded
- No works to existing river bank, play area, skate park or netball pitch included
- Community Project works excluded
- Flood storage areas assumed average 500mm deep, disposal off site
- Base date 3Q 2019
- Contaminated ground excluded
- Asbestos surveys and removal excluded
- Decontamination excluded (Hazardous materials/ needles/ pigeon guano) to areas within the sites
- Stats / service diversions or protection of existing excluded
- Night working
- Phasing of works
- Value Added Tax
- Survey Fees
- Legal fees
- Statutory fees and charges
- Development Taxes
- Archaeological Investigations
- Works beyond the curtilage of the site
- Any site Abnormals other than those specifically stated
- Finance charges
- Land costs
- Any changes in government policy, taxation or HSC legislation
- Professional Fees
- Regulation and soft spots excluded
- Assumes no ground remediation required
- Environmental mitigation other than those specifically stated
- No allowance for Environment Agency fees or permits
- No allowance for street lighting
- No maintenance included

Description	Quantity	Unit	Rate	£ p
Earthworks				
Excavation of flood storage areas , disposal off site	12,282	m3	34.61	425,080.02
Hard Landscaping				
New 2m wide gravel footpath timber edged	3,632	m2	46.68	169,541.76
New nature trail path, walk chips with timber edging	696	m2	21.56	15,005.76
Soft Landscaping				
Formation of mown path	446	m2	0.56	249.76
Grass seeding to flood storage areas	24,564	m2	1.50	36,846.00
Grass seeding, improvement to existing areas	3,595	m2	1.50	5,392.50
Wildflower seeding	1,198	m2	2.24	2,683.52
Planting, mixture of shrubs	1,198	m2	25.00	29,950.00
Street Furniture				
Natural play equipment - 1 nr Nature trail physical development climbing system	1	item	4,500.00	4,500.00
Information Boards	10	nr	1,500.00	15,000.00
Allowance for 6 Bins, 6 Benches and 2 Dog Waste Bins	1	item	6,090.00	6,090.00
General signs	1	item	1,000.00	1,000.00
Structures/Buildings				
Timber footbridge - approx. 18m long x 3.5m wide	1	item	18,750.00	18,750.00
Preliminaries				
	15	%	730,089.32	109,513.40
Contingency				
	20	%	730,089.32	146,017.86
			Total	985,620.58



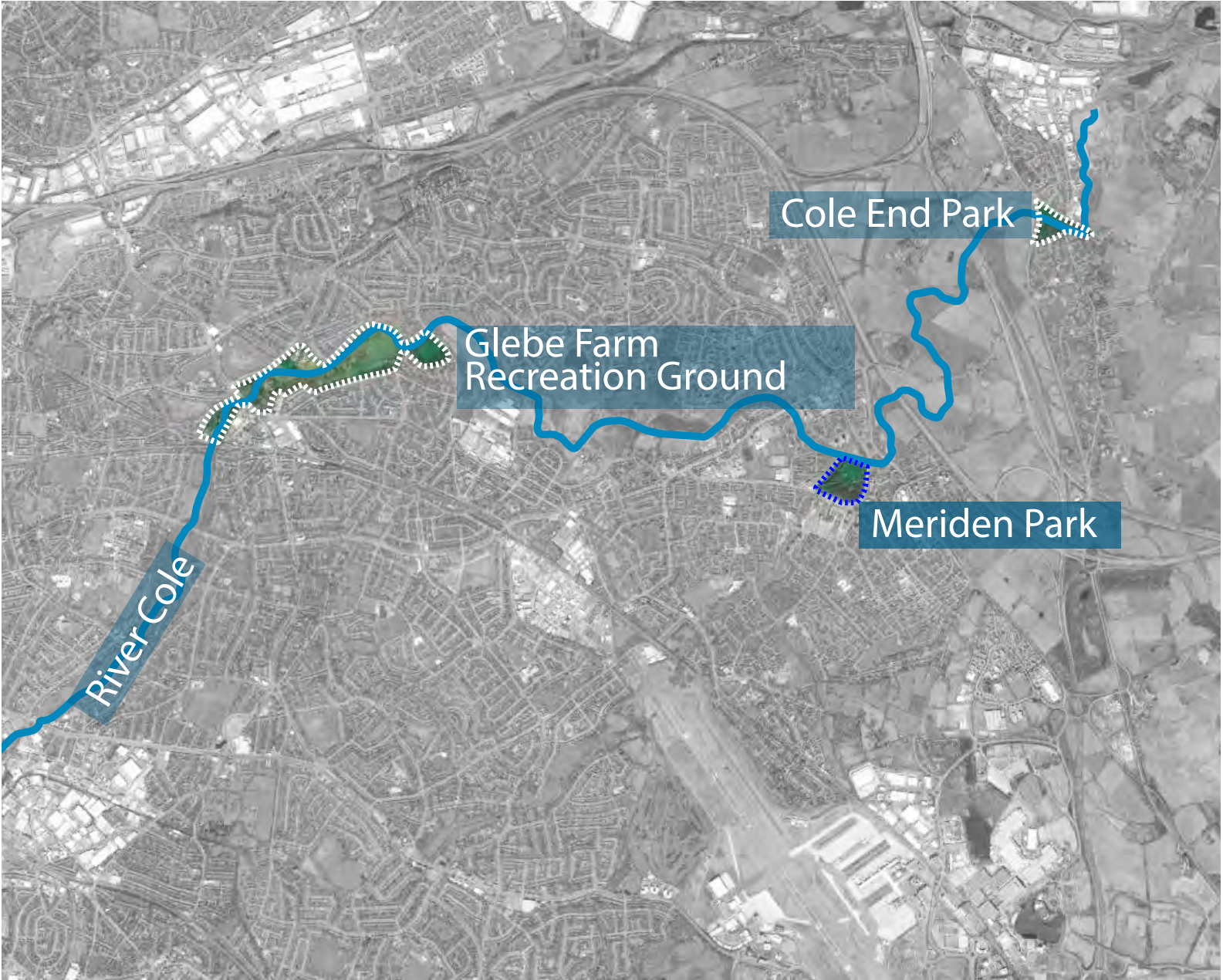
Meriden Park

Introduction

Meriden Park is situated to the east of Birmingham City Centre along the River Cole, which provides the parks northernmost boundary. To the east of the Park is the wooded tributary of Kingshurst Brook. Moorend Avenue, Chelmsley Road and roundabouts bound the park at its eastern and southern sides.

Wildlife benefits of the park are notable, as a large portion of Meriden Park is designated as Chelmsley Wood and Cole Bank Local Nature Reserves. Meriden Parks is also part of a wider connection through the River Cole connecting to Babbs Mill, York Wood and Kingfisher Local Nature Reserves to the north west of the reserve. The park is also designated as part of the wider Kingfisher Country Park.

Recreational facilities within the park include car park, several play areas including a large fenced and supervised adventure play area with play structures for both older and younger years. The park also has a football pitch and skate park, tennis courts and bowls pitch in wooded surroundings. Regular events are also held in the park which offer further recreational value.



Meriden Park

Site description

The main entrance to the park is on its central eastern side along Moorend Avenue, this entrance provides both pedestrian and vehicular access to the park. Several other pedestrian and cycle friendly entrances exist on the east, south and west of the site. Although a bridge over the River Cole exists on Moorend Avenue, there is no connectivity over the River Cole within Meriden Park itself. To the very northeast of the site is an entrance point for occasional vehicular access which is used for large vehicles associated with events such as a funfair.

Traffic along the surrounding roads can be busy, and so connectivity for pedestrians into the park is provided by both level crossings and underpasses. Accessibility in the park is good with level access available throughout and formalised tarmacked paths, as well as accessible designated parking bays in the car park. Access in to some of the more wooded areas is not as easy.

Kingshurst Brook and its associated footbridge is a prominent presence providing character to the park. It is possible to reach the river's edge at some of the less steep locations. Much of the Kingshurst Brook banks are well vegetated with scrub and tree species, as well as pockets of grass not included in a close-cut regime. Kingshurst Brook splits to create several small islands within the park, with the largest being densely vegetated and inaccessible. Visual connectivity to the River Cole is less prominent than to Kingshurst Brook within Meriden Park, as the River Cole provides the northern most boundary, has steep sides in this section, and is obscured by mature trees.

Many areas of amenity lawn with clear management regimes are present throughout the park. Some areas of more mature woodland have a relatively open field layer with little successional scrub. Areas of ornamental planting are also present around entrances and the car park.

Meriden Park provides an important recreational value to the area with regular managed events and several specific play and sport elements. As well as these features the park provides picnicking areas, information boards and some wayfinding signage, however these are varying in quality and condition.



Image across the River Cole within Meriden Park

Meriden Park

Site analysis



Meriden Park

Site appraisal

Opportunities, constraints and proposed interventions:

A - Main Entrance:

- Signage could be improved
- Unwelcoming
- No footpath access
- Messy appearance

B – Car Park Area:

- Limited spaces
- Cluttered appearance
- Inconsistent surfacing
- Some attractive trees
- Level changes across areas
- Seemingly disparate buildings – shipping containers, adventure play hut, toilet/management building

C – Tennis Courts:

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

D – 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

E – Play Facilities/Open Space

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

F – 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

G – Island

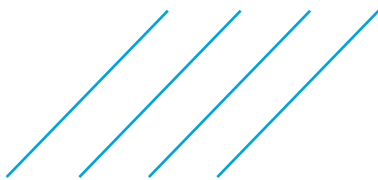
- Good quality woodland area
- Enhanced management recommended
- Potential for use as forest school/bird watching environment
- Recommend secure access to prevent unwanted out of hours access

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 new footbridges over river
- Potential to create pond dipping platforms along new lake edge and river edges

Further ideas provided by Solihull Metropolitan Borough Council, to be considered in future phases of the project at Meriden Park, are listed below but have not been included in the masterplan or for costing purposes:

- Enhance existing footbridge - introduce art panels/interpretation boards.
- improve legibility of park entrances - hierarchy of interventions dependent on importance.
- Create events space linked to Hub building.
- introduce boardwalks, signage and interpretation to facilitate access to the new wetlands created following the ERDF investment.



Meriden Park

Photographic survey



Image from the park entrance looking towards the Moored Avenue.



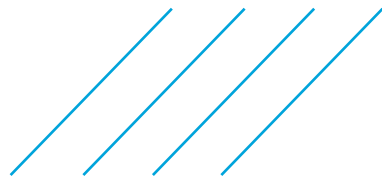
Image showing the existing park entrance from Moored Avenue.



Image looking towards the existing car park (Containers proposed to be removed.)



Image looking towards the existing public space in the centre of the park.



Meriden Park

Photographic survey



Image looking across existing pathways within the park.



Image showing the existing footbridge within the park.



Image towards the existing footbridge.



Image showing existing play provision within the park.

Meriden Park

Photographic survey



Image looking towards the edge of the River bank east of the park.



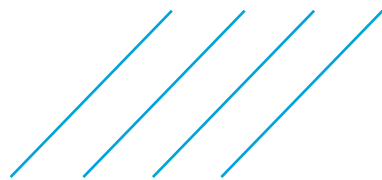
Image looking towards the edge of the river bank north of the park.



Image looking towards the edge of the River bank north of the park.



Image looking towards the residential properties north west of the park.



Meriden Park

Photographic survey



13 Image showing existing pedestrian access into the park from Chelmsley Road.



14 Image showing existing pedestrian access through the existing woodland from Chelmsley Road.



15 Image looking across existing footpath into local woodland.



16 Image showing existing access into local woodland from the park.

Meriden Park

Proposed masterplan & interventions

New bridge for access to island.

Manage woodland and island, Improve bird hide features. Provide forest school environments.

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

Pond dipping platform.

New footbridge supports vehicle free circulation route.

Information boards about local flora, nature trails, etc.

Connection towards Birmingham Airport/NEC

Wider connection along River Cole.

New footbridge over stream to support vehicle free circulation walk.

Information boards about local flora, nature trails, etc.

Potential connection to Coleshill along River Cole.

Discuss with current owners how to integrate facility into Hub building - or retain ex building.

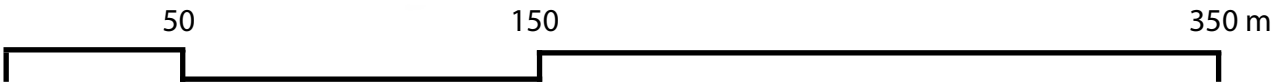
Vehicle in/out access with footpaths into park.

Formalise car park - increase parking provision.

New Hub Building - facility management, cafe, bike hire, information community services.

Retain and enhance tennis courts fencing and surfacing.

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

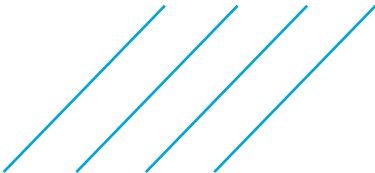


Meriden Park

Vision for Kingshurst Brook edge



This visualisation shows opportunity to create more direct access to the waters edge, offering a lookout point to experience opened views and wildlife.

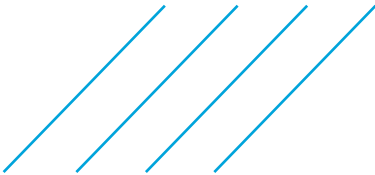


Meriden Park

Vision for open cafe and community area



This visualisation expresses an opportunity to create a community hub with cafe, outside seating and ornamental planting

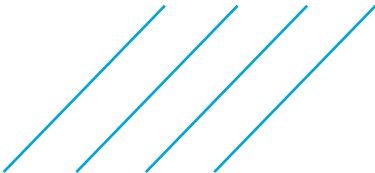


Meriden Park

Vision for Meriden Park's woodland walk



This visualisation expresses an opportunity to create a more accessible woodland walk.



Meriden Park

Precedent images



Creating information boards and add signage.



Introducing wildflower meadows and enhancing tree and shrub planting areas.



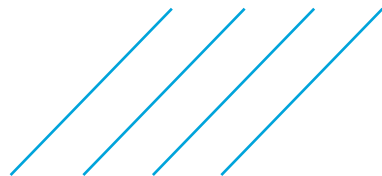
Creating better opportunities for interaction with natural environments.



Offering variety of ways to cross the river.



Enhancing character and creating landmarks with new elements.



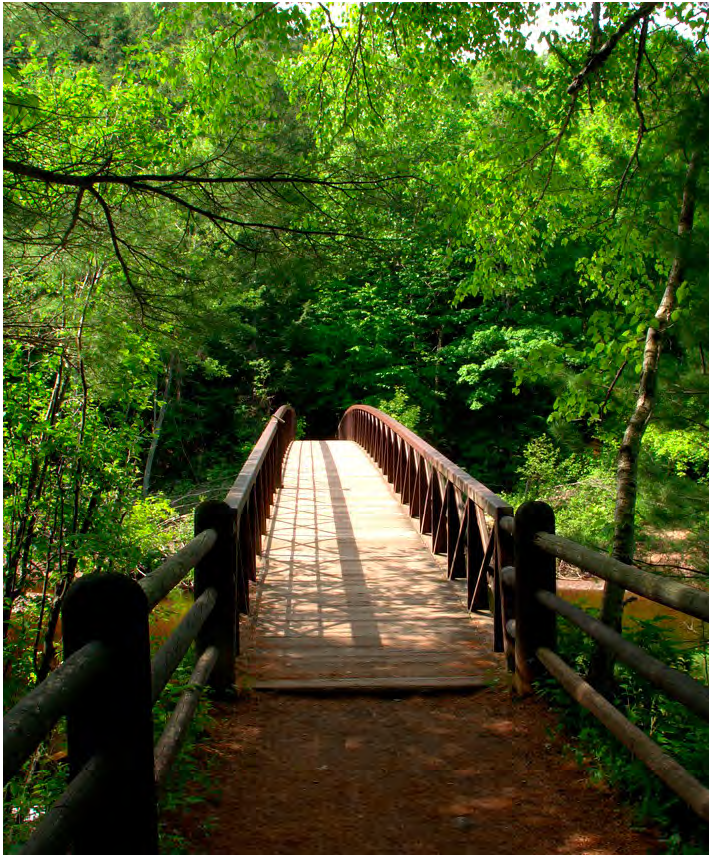
Meriden Park

Precedent images



©CC2.0 Robin Stott, Geograph

Provide naturalistic footpath along the woodland.



Improving the existing footpath into local woodland.



©CC0 Max Pixel

Improve opportunities for play.



©CC2.0 Jay, Flickr

Offer seating along the edge of the river.



Provide play areas.



©CC0 Max Pixel

Offer naturalistic play spaces.

Meriden Park

Cost Estimate

An indicative cost estimate has been produced on the basis of the proposed masterplan.

The overall estimate for works at Meriden Park is £2,722,314.90.

The build-up for this estimate is provided opposite and is based upon the following assumptions and exclusions:

- Connections to the wider area excluded
- Works to existing footbridge excluded
- No works to existing river bank or play areas included
- New building assumed to be brick with tiled roof - excluding café fit out
- Existing building to be left insitu with no refurbishment
- Assumed containers are Council owned
- Base date 3Q 2019
- Contaminated ground excluded
- Asbestos surveys and removal excluded
- Decontamination excluded (Hazardous materials/ needles/ pigeon guano) to areas within the sites
- Stats / service diversions or protection of existing excluded
- Night working
- Phasing of works
- Value Added Tax
- Survey Fees
- Legal fees
- Statutory fees and charges
- Development Taxes
- Archaeological Investigations
- Works beyond the curtilage of the site
- Any site Abnormals other than those specifically stated
- Finance charges
- Land costs
- Any changes in government policy, taxation or HSC legislation
- Professional Fees
- Regulation and soft spots excluded
- Assumes no ground remediation required
- Environmental mitigation other than those specifically stated
- No allowance for Environment Agency fees or permits
- No allowance for street lighting
- No maintenance included

Description	Quantity	Unit	Rate	£ p
Demolition/Site Clearance				
Remove existing timber bollards dispose	1	item	100.00	100.00
Remove existing fencing to tennis court area	169	m	1.50	253.50
Remove existing container	2	nr	500.00	1,000.00
Hard Landscaping				
New tarmac footpath, 2m wide	98	m2	67.85	6,615.38
New 2m wide gravel footpath timber edged	1,091	m2	46.68	50,927.88
Break out existing and resurface existing tarmac carpark, including line marking	952	m2	105.60	100,531.20
Tarmac area to hub building	325	m2	64.52	20,969.00
Break out existing tennis court surfacing and resurface, including remarking	1,762	m2	94.55	166,597.10
Soft Landscaping				
Grass seeding	1,585	m2	1.50	2,377.50
Wildflower seeding	528	m2	1.80	950.40
Planting, shrubs	528	m2	25.00	13,200.00
Street Furniture/Play Equipment				
Natural play equipment - log steps/log piles approx 5 nr pieces.	1	item	4,000.00	4,000.00
Information Boards	18	nr	1,500.00	27,000.00
Allowance for 6 Bins, 6 Benches and 2 Dog Waste Bins	1	item	6,090.00	6,090.00
General signs	1	item	1,000.00	1,000.00
Structures/Buildings				
Timber bridge average 15m long x 3.5m wide	3	nr	18,750.00	56,250.00
Fencing to Tennis court	169	m	50.00	8,450.00
Pond dipping Platform, including life buoy	5	nr	2,176.00	10,880.00
Allowance for improvements to Bird Hide features	1	item	2000.00	2,000.00
Hub Building, single storey, traditional construction, assumed 598m2	1	item	1,493,500.00	1,493,500.00
Preliminaries				
	18	%	1,972,691.96	355,084.55
Contingency				
	20	%	1,972,691.96	394,538.39
			Total	2,722,314.90



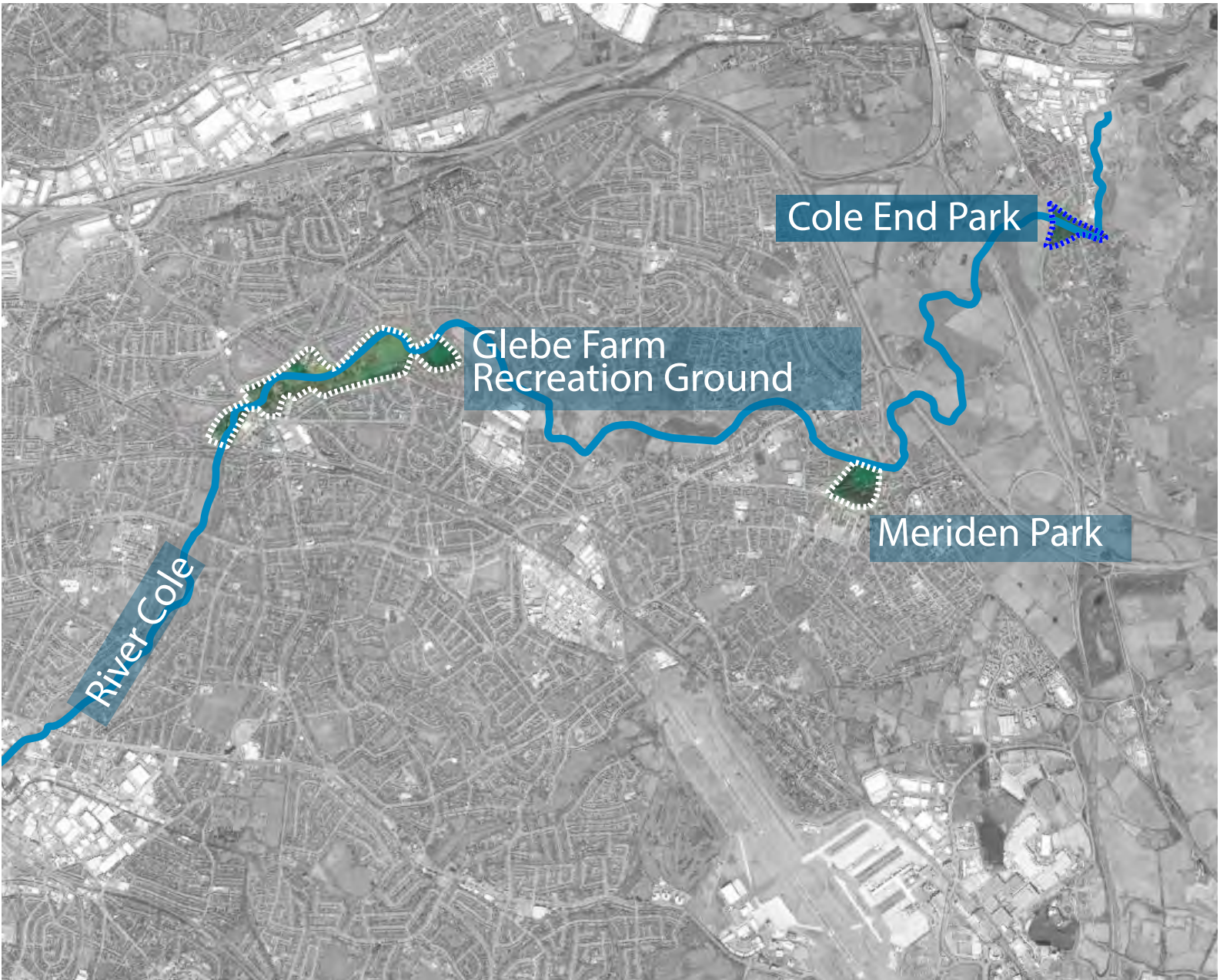
Cole End Park

Introduction

Cole End Park is located along the River Cole east of Birmingham City Centre. The park is situated south of the district of Cole End, and north of Coleshill market town. Lichfield Road bounds the park on its northern and eastern sides, while the A446 provides the parks western boundary. On these boundaries both roads bridge over the River Cole, which runs centrally through the park east to west.

The site currently provides areas for wildlife, children's play and serves as a general amenity area for the local population.

A single footpath runs through the site along the south bank of the river. The footpath continues west from the site under the road bridge or onto the A446 via a set of steps cut into the highway embankment. To the east the path joins the B4117 highway pavement to head south or north across the river via a concrete footbridge.



Cole End Park

Site description

The park is divided by the River Cole which runs west to east and by a concrete aqueduct/conduit running north to south. The conduit carries sewage across the river. To the east of the aqueduct and south of the river is an area designated for wildlife which is managed by the wildlife trust.

Between the wildlife area and the B4117 bridge is an area of grassland containing occasional specimen trees.

To the north of the river is an area of amenity grassland containing mature specimen trees with pollarded willows along much of the river bank to the east of the aqueduct.

The river is heavily canalised through the site with steep banks and limited vegetation / wildlife habitat. The river is uniformly wide and the river bed is reportedly level with no physical features and with no low water channel to allow fish to move up and down the river at times of low water.

Within the park there are four culverts with outlets into the river. Two appear to have collapsed and be no longer active. It is not clear where the culverts run from and who has responsibility for them.

In the south west corner of the site there is a playground accessed from Old Mill Road and connected to the rest of the site via footpaths that run through the nature area / woodland directly to the river bank footpath or east more directly towards the B4117.

Within the amenity grass area to the north of the river there is a strip of slightly raised ground running parallel with the riverbank. It has been surmised that this is probably the arisings from the river bed taken at the time that the river was widened.

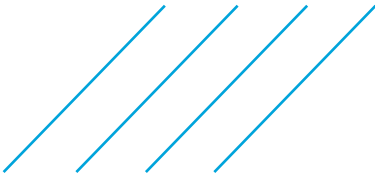
Pedestrian transit across the river is facilitated by a concrete and steel bridge running parallel with the road bridge. Between the two bridges the land regularly floods at times of high water and the banks have possibly encroached on the river channel in this location.



Image across the River Cole within Cole End Park

Cole End Park

Site analysis



Cole End Park

Site appraisal

Opportunities, constraints and proposed interventions:

A - Close cut grass - potential for different mowing regime to encourage biodiversity and pedestrian routes

B - Raised earthwork - potentially river gravels from earlier river canalisation - could be used to create riffles and other features on river bed

D - High banks and vertical sides, bank profiles could be altered for improved biodiversity

C - Established footpaths

E - Culverts without flow in to river (two collapsed/blocked)

F - Potential for additional on-site parking subject to services search

G - Bridge (pedestrian) requires updating. Too narrow for two people to pass.

H - Silt build up here overtime due to flooding, this could be remedied and managed to improve aesthetics and better protect receptors such as aquatic life.

I - Arches through culvert provide permeability but poor headroom, opportunity to increase headroom under arches by lowering ground level.

J - Play area - conventional equipment on low impact surface, opportunity for natural play features.

The proposed masterplan has been presented at a public consultation event, this generated further ideas to be considered in future phases of the project at Cole End Park. These are listed below but have not been included in the masterplan or for costing purposes:

- A second footbridge near the Severn Trent sewerage pipe, to create a circular walk.
- Provide a surfaced path along the south of the river.
- Provide natural play features within the woodland and around the park.
- Create meadow in floodplain areas, utilising the low spots.
- Create an area that the local schools can use for outdoor education.

Cole End Park

Photographic survey



Pedestrian footbridge across River Cole adjacent to B446 road bridge viewed from the north.



Pedestrian footbridge across River Cole adjacent to B446 road bridge viewed towards north west.



Collapsed culvert on southern bank of river.



Active culvert on southern bank of river.

Cole End Park

Photographic survey



5 Concrete aqueduct / conduit – Arches provide pedestrian permeability but restrict headroom – viewed from the east towards wildlife area.



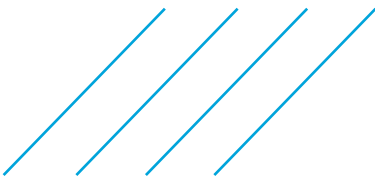
6 Amenity grass area north of river showing raised earthwork parallel with the river (possibly excavations from river).



7 Concrete aqueduct / conduit viewed from the east towards wildlife area along river bank also large culvert



8 Concrete aqueduct / conduit in northern side of site.



Cole End Park

Proposed masterplan & interventions

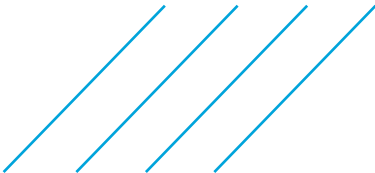


Cole End Park

Vision of enhancements to the banks of the River Cole within 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.



Cole End Park

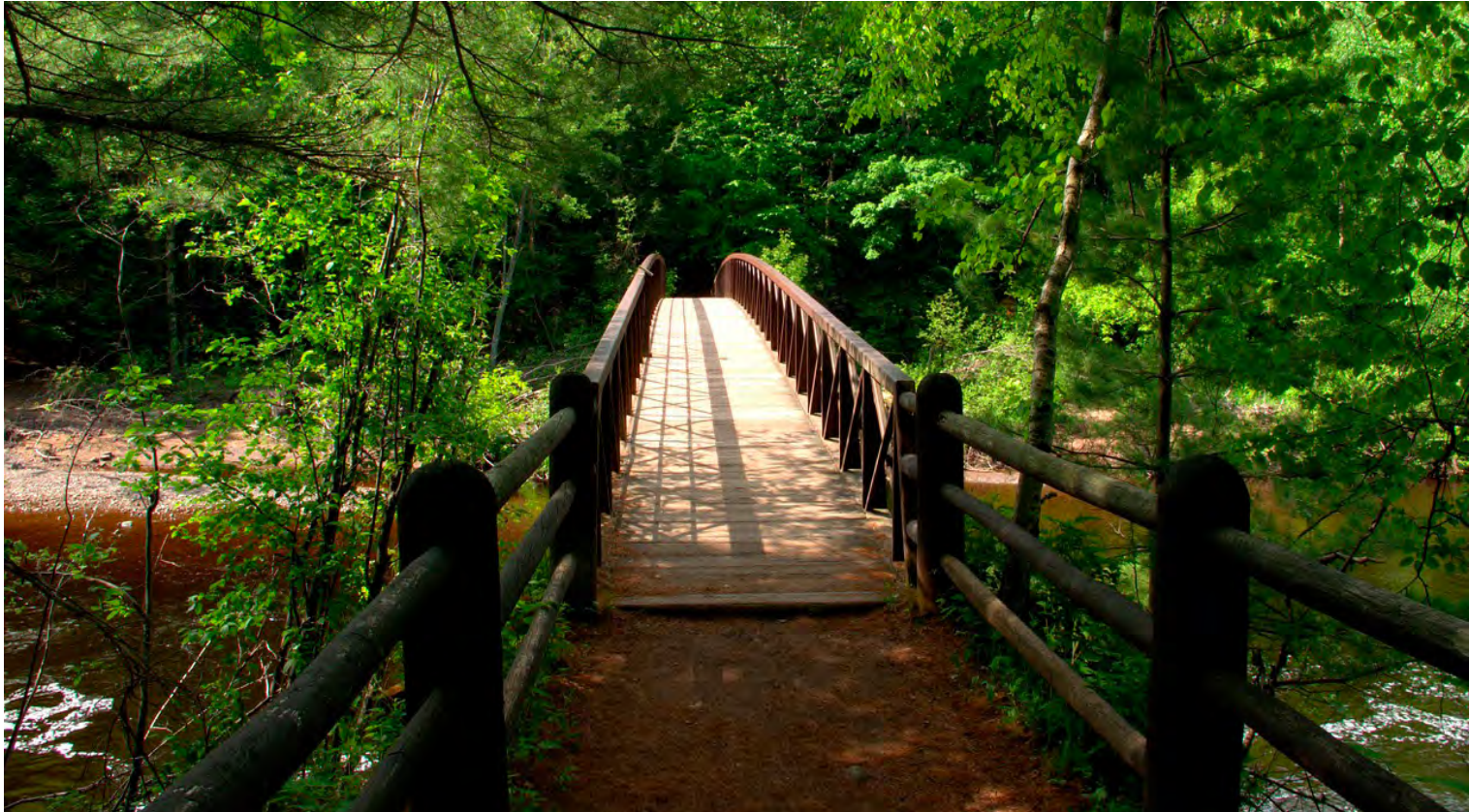
Precedent images



Introduction of more sport, cycle and natural play elements to improve recreational value.



Example of an iconic wooden bridge that could be implemented.

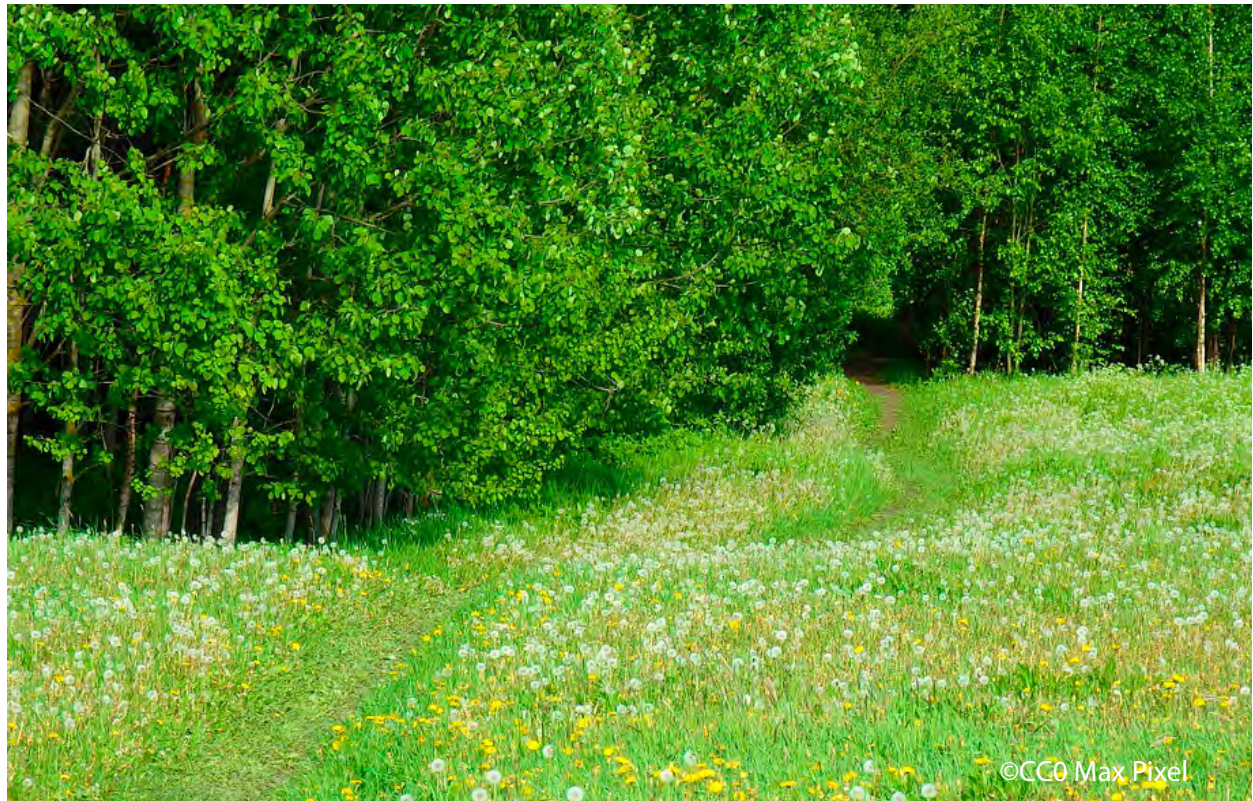


Cole End Park

Precedent images



Introduction of additional shrub planting areas and wildflower meadows to provide extended seasonal interest and biodiversity benefits.



Introduction of temporal features such as a mown path to create better defined identity for the park.



Example of new natural elements and reprofiling along the river edge to encourage natural play and immersion in nature.

Cole End Park

Cost Estimate

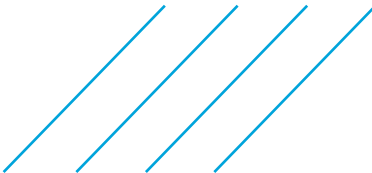
An indicative cost estimate has been produced on the basis of the proposed masterplan.

The overall estimate for works at Cole End Park is £768,267.61.

The build-up for this estimate is provided opposite and is based upon the following assumptions and exclusions:

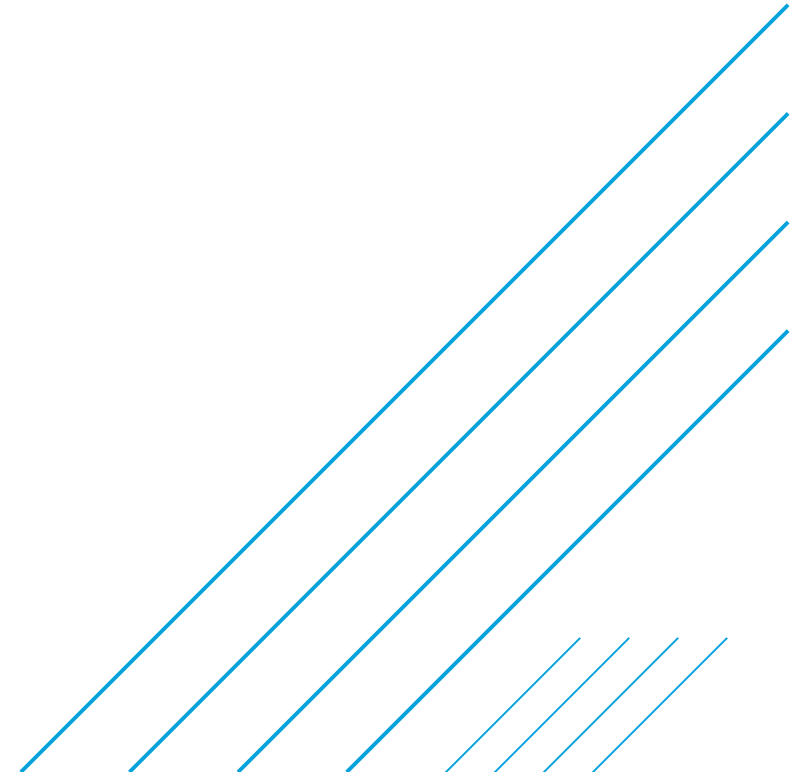
- Works to existing culverts excluded
- Reprofilng to arches assumed 500mm depth, which will not undermine structure foundations
- Gravel Banks assumed to be 300-600mm deep
- Connections to the wider area excluded
- River bank reprofiling assumed to be average 1m wide x 1m deep
- Assumed no requirement to cofferdam river for gravel bank or riverbank reprofiling works
- No allowance for temporary footbridge whilst new footbridge installed
- Base date 3Q 2019
- Contaminated ground excluded
- Asbestos surveys and removal excluded
- Decontamination excluded (Hazardous materials/ needles/ pigeon guano) to areas within the sites
- Stats / service diversions or protection of existing excluded
- Night working
- Phasing of works
- Value Added Tax
- Survey Fees
- Legal fees
- Statutory fees and charges
- Development Taxes
- Archaeological Investigations
- Works beyond the curtilage of the site
- Any site Abnormals other than those specifically stated
- Finance charges
- Land costs
- Any changes in government policy, taxation or HSC legislation
- Professional Fees
- Regulation and soft spots excluded
- Assumes no ground remediation required
- Environmental mitigation other than those specifically stated
- No allowance for Environment Ageny fees or permits
- No allowance for street lighting
- No maintenance included

Description	Quantity	Unit	Rate	£ p
<u>Demolition</u>				
Demolish existing metal footbridge approx 45m long, disposal off site	1	item	50,000.00	50,000.00
Take down and set aside for reuse play equipment	1	item	2,700.00	2,700.00
<u>Earthworks</u>				
River bank reprofiling, topsoil strip & replacement, disposal other spoil of site, assumed average 1m wide x 1m deep	195	m3	51.54	10,050.30
Aquaduct arch earthworks reprofiling, maximum 500m	40	m3	34.61	1,384.40
Gravel banks, approximately 600mm deep	205	m3	74.79	15,331.95
<u>Hard Landscaping</u>				
Break out existing play area surfacing and resurface with wet pour safer surface	583	m2	94.55	55,122.65
Tarmac cyclepath 3m wide, including edgings	270	m2	64.53	17,423.10
New 2m wide gravel footpath timber edged	202	m2	46.68	9,429.36
New tarmac carpark, including kerbs	207	m2	87.36	18,083.52
<u>Soft Landscaping</u>				
Formation of mown path	670	m2	0.56	375.20
Grass seeding	821	m2	1.50	1,232.10
Wildflower seeding	274	m2	2.24	613.31
Coir Planting, including reeds	195	m	45.49	8,870.55
<u>Street Furniture/Play Equipment</u>				
Take from store, refurbish and reinstall existing play equipment	1	item	5,300.00	5,300.00
Natural play equipment - log steps/log piles approx 5 nr pieces.	1	item	4,000.00	4,000.00
Information Boards	6	nr	1,500.00	9,000.00
Allowance for 6 Bins, 6 Benches and 2 Dog Waste Bins	1	item	6,090.00	6,090.00
Cycle stands	2	nr	1,540.34	3,080.68
General signs	1	item	1,000.00	1,000.00
<u>Structures/Buildings</u>				
Timber footbridge - approx. 25m long x 3.5m wide	1	item	350,000.00	350,000.00
Preliminaries	15	%	569,087.12	85,363.07
Contingency	20	%	569,087.12	113,817.42
			Total	768,267.61



Appendix D

Steering Group Commitment



Cole Valley Catchment Landscape Vision

10 Year 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.

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.

Project Steering Group:

The Cole Valley Catchment Landscape Vision has been developed through the support, contributions and expertise of the organisations listed below. Individuals within those organisations are committed to supporting the ongoing delivery of the 10 Year Vision and Strategic Objectives.



North Warwickshire
Borough Council



West Midlands
Combined Authority

