

# South West London Greenways

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## Network Expansion – Consultation Document

### October 2009

Compiled by Tom Sharland





Sustrans is the UK's leading sustainable transport charity. Our vision is a world in which people choose to travel in ways that benefit their health and the environment. We work on practical, innovative solutions to the transport challenges facing us all. Sustrans is the charity behind the award winning National Cycle Network, Safe Routes to Schools, Bike It, TravelSmart, Active Travel and Liveable Neighbourhoods, all projects that are changing our world one mile at a time.

To find out more visit or call: [www.sustrans.org.uk](http://www.sustrans.org.uk) 0845 113 00 65

Head Office  
Sustrans  
2 Cathedral Square  
College Green  
Bristol  
BS1 5DD

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## 1.0 Introduction

This project is to identify a network of greenways for future development across South West London in the London Boroughs of Richmond, Kingston and Sutton.

Greenways are attractive and appealing routes for cycling and walking which are intended to encourage people to travel in ways that benefit their health and the environment. The greenways concept is described further on pages 6 to 9.

This network identification and feasibility study follows on from the South West Greenways (2006) and the North West, North East, North Central and South Central Greenways (2008/9).

The initial SW Greenways study acted as a pilot project for the concept of a cross borough network of greenways routes, and the forerunner for those feasibility studies which have since been completed. This network covered the three boroughs listed above, along with Merton and Wandsworth. It is the intention of this study to look at those areas not covered in the initial network identification; the western half (Middlesex Bank) of Richmond, and southern sections of Kingston and Sutton. This is the area on which the consultation is being carried out and is discussed in more detail in section 4.0.

The existing network was consulted upon in 2006 and covers the eastern half of Richmond (Surrey bank), and northern areas of Kingston and Sutton.

The study is being undertaken by Sustrans, the UK's leading sustainable transport charity, in collaboration with a project steering group made up of officers from the relevant London boroughs.

It is funded as part of Transport for London's Greenways programme which intends to identify and deliver a pan-London network of greenways in the coming years.

### 1.1 The process

A potential greenways network has been identified by Sustrans and the steering group. This consultation document is intended to introduce the project and the

potential network to relevant stakeholders, interested groups and individuals in the area.

A six week consultation process will gauge perceptions of both the general concept and the specific ideas and suggestions put forward in this document.

Following the consultation period a final report will be produced which will analyse the consultation responses, make any changes to the greenways network and put forward a proposed delivery schedule. This will inform subsequent funding applications and allocations.

Looking further ahead, as the network is developed in the coming years there will be further opportunities for stakeholders to input into the process.

Network proposals taken forward may be subject to additional scrutiny through the development of a 'Green CRISP', a Cycle Route Implementation Stakeholder Plan. This is an in-depth route study originally developed for use on the London Cycle Network Plus, which has been amended for use in the development of greenways. This document aims to identify the network alignment, however further feasibility and consultation is anticipated on all schemes taken forward which in turn may affect the alignment.

## 2.0 Context

*(Note: the photographs in this and the next section are to illustrate the issues only; for the most part they were not taken in the study area.)*

### 2.1 Congestion, obesity and Climate Change

At a time of worsening traffic congestion, serious concerns about human induced climate change and a growing obesity epidemic, due in part to physical inactivity, there has never been a better time to try to change the way we travel.

The current growth in London's population is putting stress on the transport system. Much of our transport infrastructure is either at or over capacity at key times. With continued population and travel demand growth anticipated over the coming decades, it will become increasingly important to use London's road space

efficiently. Facilitating and encouraging people to make more of their short journeys on foot and by bike will be one of the key means of achieving this.

Sedentary lifestyles are causing an obesity epidemic and increasing the risk of health problems such as diabetes, heart disease, stroke, cancers and osteoporosis. In London, more than one fifth of children are classified as obese, with 50 percent of Londoners defined as 'inactive'. NHS London estimates that this inactivity costs £105 million per year. One of the most effective ways to increase physical activity is to adopt walking and cycling into regular routines, such as the journey to work, school or to the shops. Guidance from health advocates, including the National Institute of Health and Clinical Excellence (NICE), promotes the creation of built or natural environments which encourage and support physical activity through making walking and cycling more convenient and appealing.

The need to reduce greenhouse gas emissions is now known to be urgent as the impacts of climate change are already starting to be felt around the world. London is



responsible for a significant proportion of UK carbon dioxide emissions, producing approximately 44 million tonnes per year. Almost a quarter of this comes from road transport. The Mayor has committed London to an ambitious carbon dioxide emissions reduction target of 60 percent by 2025. The Mayor's Climate Change

Action Plan (2007) sets out how this can be achieved and includes 'making lower-carbon forms of travel (public transport, walking and cycling) more attractive, to deliver mode shift'.

## 2.2 Walking and Cycling in London

Walking is a key mode of travel for Londoners. Over 20% of journeys in the capital are on foot, but this does not reflect the full importance of walking as a stage in longer journeys involving other modes.

There is a target to increase journeys made on foot by one million trips per day over the period 2009/10 - 2011/12 (up from 5.7 million journeys per day made by foot in 2007). Policies being pursued to achieve this include Legible London, a pedestrian way finding system currently being piloted in selected locations in central and outer London.

The Strategic Walk Network (SWN) currently provides 6 walking routes with over 560kms of network across the capital. Transport for London funds both the SWN and 'Key Walking Routes'.

Cycling in London has grown considerably over recent years. On the Transport for London (TfL) road network between 2000/01 and 2007/08, 91 percent more cyclists were observed passing selected counting points.

However, there is significant disparity, both demographically and geographically, in terms of where this growth has occurred. Approximately twice as many cycle trips are made in London by men and boys than by women and girls. Despite the overall growth in cycling, as noted above, trips by children and young people declined in this period. A considerably higher proportion of cycle journeys are made in central and inner London, than in the outer boroughs.

The Mayor of London, Boris Johnson, has made facilitating and encouraging cycling a priority and has adopted a target of a 5 percent mode share for cycling by 2025. Key programmes currently being pursued to achieve this are the central London Cycle Hire Scheme, due for launch in May 2010, and Cycling Super Highways, which will be commuter focused routes between outer and central London.



*At their best, Greenways support a whole range of journeys*

## 2.3 GOAL – Greenways for the Olympics and London

Greenways for the Olympics and London (GOAL) is Sustrans' vision for a sustainable city. GOAL aims to improve the lives of all who live in or visit London by creating a safe and attractive environment for walking and cycling. It seeks to enable people of all abilities to choose to walk and cycle for more of their everyday journeys.

In 2005, following the announcement that London had

been selected to host the 2012 Olympic Games, it was clear that a valuable opportunity had come to create a positive legacy for Londoners.

London's bid was in part built on the premise that London 2012 would encourage the next generation to take up sport or regular physical activity as part of their everyday lives, and the Active Spectator Programme was a key element of that aspiration.

Sustrans embraced these opportunities and the GOAL vision for attractive walking and cycling routes connecting to the Olympic sites and across London was put forward. This included the initial SW Greenways network study, centred around the All England Lawn Tennis Club (AELTC) in Wimbledon. We still use GOAL as an umbrella term and guiding principles for much of Sustrans' work in London; work which is delivered through a range of programmes and in partnership with many stakeholders, partners and funders.

## 2.4 London Greenways

London Greenways (formerly known as CoG – Cycling on Greenways) is a TfL funded programme, overseen by Sustrans, to deliver greenways throughout London. It is a key element in the realisation of Sustrans GOAL vision.

Since 2006, Sustrans has been working successfully with TfL and the boroughs of Richmond, Kingston, Wandsworth, Merton, Sutton to deliver and promote a network of greenways in southwest London. The success of this project means that further greenway sectors have been brought together, comprising most of London's boroughs and other managing authorities such as British Waterways, The Royal Parks and Lee Valley Regional Park.

The London Greenways programme is guided by a forum comprising the TfL Walking, Cycling and Accessibility team, Sustrans, relevant statutory authorities, and walking and cycling groups including The Ramblers Association, Living Streets and the London Cycling Campaign.

The main purpose of the forum to date has been to contribute to the development of the Greenways Implementation Plan. Of particular relevance is an analysis of the equality impact – both positive and

negative - of greenways on vulnerable users.

This assessment, completed in late 2007, concludes that whilst greenways need to be carefully developed and managed, they are beneficial to a wide range of users, and that these positive benefits outweigh any negative impacts.

It also makes a number of recommendations for greenway development in London, which are currently being pursued, including measures to encourage considerate behaviour, such as a greenway user's code of conduct.

### 3.0 Greenways: routes for All

#### 3.1 What are greenways?

Greenways are largely off-highway routes connecting people to facilities, parks and open spaces. They are for shared use by people of all abilities on foot or bike, for commuting, play or leisure. Greenways link to other networks for non-motorised users such as the London Cycle Network Plus and existing walking routes such as the Capital Ring. Greenways also link stretches of quiet minor roads and/or traffic-free sections of busier roads.

#### 3.2 Greenways design principles

Although each greenway is likely to have different design requirements due to its location, surroundings and projected level of use, there are a number of principles that guide delivery which are briefly set out here.

##### *Shallow gradients:*

In identifying a greenway network, routes that are flat or which have only shallow gradients are prioritised. Steep slopes are known to be a deterrent to cycling, especially for new cyclists. Routes that are largely flat are also greatly preferred by wheelchair users and most others with limited mobility.

##### *Biodiversity*

In December 2007, Sustrans published a Biodiversity Action Plan (BAP) for the National Cycle Network (available on our website) which identifies ways in which we can "provide a series of safe and enjoyable routes

*that promote sustainable forms of transportation, while ensuring that the biodiversity along the Network is enhanced and protected, within the constraints of safety and resources".* Sustrans seeks to minimise the impacts on wildlife and its habitats during expansion of the National Cycle Network and in constructing any other routes.

Sustrans recognises the importance of its traffic-free paths as wildlife habitats and corridors to help reduce isolation and fragmentation. These routes also offer potential for educating the public about local wildlife and geology. In constructing and managing paths and routes for which it is responsible, Sustrans will aspire to do this



*The different surfaces through parks.  
Above: hoggin. Below: tarmac*



with high biodiversity and geological gain as an objective, using the framework provided by the BAP. This is of particular importance when considering path widths and surfaces of greenways infrastructure. Similarly, Sustrans would expect partners to adhere to similar standards.

##### *Appropriate width and surfacing:*

The appropriate width of the route will depend on the number of users, the nature of the environment and the level of enclosure (i.e. whether there are structures or trees alongside the path). For routes which are shared for pedestrians and cyclists, 3 metres should be the minimum for safe and comfortable use. On a busy or enclosed path greater width may be necessary.



*Shared and segregated paths*



*Shared or adjacent use?*

Greenways can either be unsegregated – to mean a shared use path with no form of pedestrian/cyclist separation and segregated to encompass paths where a design feature whether it be a line, level difference or landscaped strip separates the types of users. A number of factors will determine the most appropriate type, including; available space, type and number of cyclists, pedestrian flows, biodiversity and the local environment. A decision on the type of path to be

implemented should be considered on a location by location basis, taking into account the factors mentioned above, and in conjunction with local consultation.

In addition, consideration should be given to the 'type' of cyclists using the route and the purpose of their journey. If the path forms part of a route that may be used by faster cyclists (for instance if it is on a popular commuter corridor) it may be appropriate to also consider improving the cycling conditions on a parallel on-road route. This would encourage any cyclists who wish to go quickly to stay on the road rather than using the greenway where slower cycling may be more appropriate.



*Brockwell Park, Lambeth.*

Consultants Intelligent Space Atkins were commissioned by Transport for London to undertake research on shared space, and in particular the measurable parameters that decide where it is appropriate to implement. This work will inform local decisions on the network and the first draft is due in April 2010.

#### *Routes in parks*

There is frequent reference to circular, recreational routes in parks within this report. Such routes are not intended as routes for speed or training. Routes that run around the park are intended to allow access to the park by cycle from a number of access points and allow people to make a variety of journeys through the park in different directions. They are also intended to be used by less confident and new cyclists to gain experience on

a bike and as leisure routes.

#### *On-road and beside road routes:*

As noted, greenways are not only routes within green spaces, but also connections between them. Where the routes go on road, quieter residential streets are preferred since these are more appealing, particularly to new and less confident cyclists.

Measures such as tree planting along streets can extend the greenway feel and raised crossings at side roads can greatly improve conditions for pedestrians and wheelchair users.

If a greenway follows a busier road, an in-depth consideration of the route options will need to be undertaken. Measures may include on-street cycle lanes or traffic calming, or perhaps an off-road cycle track would be appropriate where there is the requisite space available. Again, raised crossings at side roads will benefit pedestrians and those with limited mobility.

#### *Signage, furniture and public art:*

To encourage responsible behaviour on greenways new signage has been developed which clarifies that greenways have pedestrian priority and cyclists should have consideration for other users. In the interest of greenways being suitable for all users, attention should also be given to appropriate street furniture. For example, within green spaces seating should be provided at regular intervals since this is particularly important for pedestrians with limited mobility.

#### *Lighting:*

Lighting may be needed on key strategic greenways links to encourage 24 hour use, where as other routes



*An example of the new signage which promotes pedestrian priority (not DfT approved)*

will form primarily day time walking and cycling connections. Prior to any new lighting being installed careful consideration will be given to safety, biodiversity and maintenance issues, plus the anticipated cost. Land ownership issues will also have to be considered; for example the locking of some borough parks at dusk. Prior to any decision being made detailed local consultation will be undertaken.

### **3.3 Why greenways?**

*They encourage more people to walk and cycle more often:*

Greenways play a crucial role in achieving higher levels of cycling and walking in London. They provide an opportunity for cyclists to ride in safe and pleasant



*Children cycling to school*

conditions. For those who are taking up cycling for the first time or after a break, the use of greenways will often be a first step towards more general use of cycling as a transport mode.

Sustrans research and experience on the National Cycle Network (NCN) is that traffic-free routes, such as greenways, act as a cycling 'nursery' for children and less confident adult cyclists and that they complement other measures to encourage more cycling.

Greenways are also known to be a catalyst for more walking. On the NCN for instance, Sustrans found in 2007 that roughly half of the 350 million journeys made

annually are by pedestrians.

#### *Improved clarity of routes:*

The process of identifying a network of greenways allows all of the existing cycling and walking routes and paths, as well as potential new ones, to be considered. This means that those routes (and only those routes) that can be made suitable - in terms of their width, gradient, design and signage - for comfortable and safe shared use by pedestrians and cyclists are developed. The resulting greenway network is one which is clearly differentiated from other paths in the area through its design and signage. This provides greater clarity for



*Greenways should be able to be accessed and enjoyed by all*

cyclists as to where cycling is appropriate and encouraged, and conversely where it is not, due to the path being too narrow, steep or otherwise potentially hazardous.

#### *Health & lifestyle:*

The link between good health and regular exercise is well established. Walking and cycling have a positive effect on fitness and are linked to reduced stress. Research shows that people are more likely to continue physical activity if it includes close contact with nature. Greenways can be adopted by both cyclists and non-

cyclists as a place to carry out regular exercise.

#### *Social Inclusion:*

Cycling and walking are inclusive transport modes that are cheap and available to people from all walks of life, regardless of whether or not they have access to a car. They are also available to children. The development of safe, appealing and convenient greenway routes can reduce transport, social and health inequalities by creating accessible environments that increase travel and recreation options and independence.

#### *Improved access to green spaces:*

It is increasingly recognised that access to green space is important for well-being. The development of greenways, which connect residential areas to green spaces, is particularly beneficial for people with disabilities since the width, gradients, surfaces and entry/exit points that are typical of greenway routes are ideally suited to wheelchair users.

#### *Crime and safety:*

Increasing the use of routes in parks and alongside waterways can improve user perceptions of safety and security and reduce the level of unobserved crime. In particular the presence of police officers using cycles can be a deterrent to crime.

#### *Leisure, recreation and tourism:*

Greenways provide a refreshing and enjoyable travel experience, and can increase access to many cultural, recreational and social areas of interest for Londoners and for tourists. In addition, greenways have an important role as leisure facilities in their own right for both cycling and walking.

#### *Improving public realm by greening streets:*

Delivering greenways provides the opportunity to improve the street environment of the on-road sections of the routes. Measures such as tree planting can enhance the public realm and extend the greenway feel into surrounding areas.

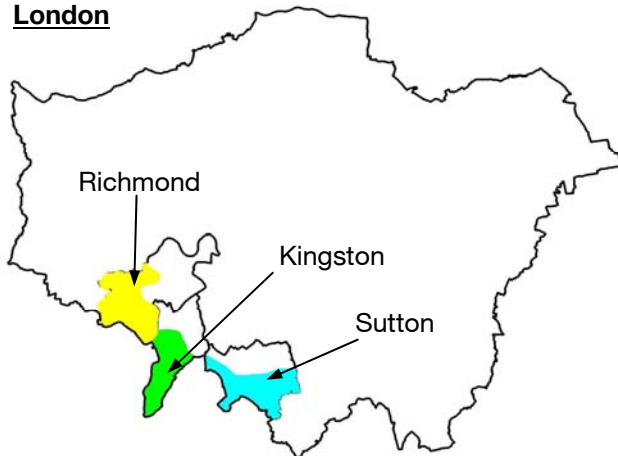
## 4.0 The study area

### 4.1 The area in brief

The area defined for this study, and therefore part of the consultation, comprises the western section of the London Borough of Richmond (Middlesex bank), the southern half of the Royal Borough of Kingston upon Thames and southern half of the London Borough of Sutton. As mentioned in the introduction approximately half of each borough was included in the SW London Greenways study in 2006/7. While it is not the intention of this report to revisit the network as already identified, it will be shown on mapping in order to highlight continuity with the newly identified network.

In more detail, the geographic areas not initially studied in 2006/7 and therefore the focus of this report are the Middlesex section of Richmond to the west of the river Thames, approximately half of Sutton to the south of Sutton Town Centre and the area of Kingston to the south of the Hogsmill River and Kingston Town Centre. The position of the boroughs, and the areas that form part of this study (shaded), within Greater London is highlighted below.

#### London



The area combines a number of outer London town centres with extensive green space. The National Cycle Network (NCN) runs through the London boroughs of Richmond and Sutton; routes 4 and 20 respectively. The

Strategic Walks Network (SWN) is also well established in the region, with the Thames Path, Capital Ring and London Outer Orbital Path (LOOP) each passing through at least one of the boroughs. While there are a number of London Cycle Network Plus (LCN+) routes in the western half of Richmond, the network is less dense in outer Kingston and Sutton. These are discussed in more detail below.

### 4.2 Existing Studies/Reports

This study has been informed by:

- Sunnyside Bridge Feasibility Report, Whitby Bird & Partners. November 2001.
- London Borough of Richmond Upon Thames, Saved UDP. March 2005.
- Wimbledon Greenways Consultation Document, Sustrans. October 2006.
- Wimbledon & SW London Greenways Feasibility Report, Sustrans. April 2007.
- London Borough of Richmond Upon Thames, Local Development Framework Core Policy, adopted April 2009.
- Mayor's Transport Strategy, Statement of Intent. GLA. May 2009.
- North West Greenways Feasibility Report, Sustrans. May 2009.
- Crane Valley Feasibility Study, FORCE. July 2009.

### 4.3 Existing and developing networks

#### National Cycle Network

National Cycle Route 4 (NCR4) in London follows the River Thames between Greenwich and Hampton Court. In south west London it connects Putney Bridge to Richmond Park, then joins the towpath at Teddington Lock and continues to Hampton Court Bridge and into Surrey.

National Cycle Route 20 (NCR20), the Wandle Trail, runs south from the Wandle Delta, through the London boroughs of Wandsworth and Merton before connecting into Sutton, where the route continues south through Carshalton and towards Oaks Park.

Both routes are signed to a high standard and are popular with pedestrians and cyclists for both leisure

and local utility journeys.

#### London Cycle Network Plus (LCN+)

The LCN+ forms a cycle network of 900km across London. This network aims to provide a continuous, fast, safe and comfortable series of routes that primarily run towards the centre of the city. It also offers orbital and radial routes in both inner and outer London. The greenways network forms a complimentary network to existing walking and cycling routes. Where appropriate there is cross over with the LCN+, but only if the section of route fits with the greenways criteria as listed Section 3.2 (page 7). However, cross over with the LCN+ in this study area is less prominent than other areas, with only 106km of total route found across the three boroughs, most of which is outside of the study area.

#### Strategic Walks Network (SWN)

The Capital Ring is a 125km/78 mile path that encircles inner London. It makes up 27% of the SWN.

The Thames Path within London is a 107km path that, for its majority, runs on both the northern and southern sides of the River Thames. Within the study area, it runs through the London Borough's of Richmond and Kingston.

The London Outer Orbital Path (LOOP) is often described as the 'M25 for walkers' as it almost entirely circles outer London, covering a distance of nearly 240km. It is the most prominent SWN route within the study area passing through all three boroughs.

All SWN routes are shown in the mapping found later in this consultation document, both in the overview mapping and borough sections. Any proposed cross over between the greenways network and the SWN is also highlighted in the borough maps.

### 4.4 Other projects

There are a number of other projects which influence this work. The most relevant include:

#### Smarter Travel Sutton

A joint initiative, funded by TfL, that focuses on

improving travel options and awareness in the borough with the aim of reducing car use and encouraging more sustainable and active forms of travel. This is done through a range of projects, including Personalised Travel Planning (PTP) in which residents are given specialised advice, development of work based travel plans, dedicated school travel plan advisors and a range of promotional and awareness building events.

The project is funded to run for three years between 2007 and 2010, with £5m funding from TfL. Sutton was the first borough-wide green travel programme in London. Benefits so far have included a 7% cut in car journeys to schools with travel plans and the installation of more than 2,600 secure cycle parking stands.

#### *Smarter Travel Richmond*

This programme was launched in 2009, following on from the Sutton project, again funded by TfL at a cost of £5m, with a duration of 3 years.

As with the Sutton scheme, the aims of this project are to improve travel choice through the promotion of more sustainable forms, such as walking and cycling. The exact scope of the project is at present being agreed, but it is likely this will include:

- Cycle training
- Improved cycle facilities
- Car club bays
- Work and school based travel plans
- Better information on sustainable travel options.

This project does offer the opportunity for improved cycle facilities, and therefore possible cross over with the greenways network. The exact level and scope of this funding is yet to be finalised.

#### **4.5 SW Greenways Area Study—2006/7**

As mentioned earlier in this report a pilot greenways area study was carried out in the boroughs of Merton, Wandsworth, Kingston, Richmond and Sutton in financial year 2006/7. This study was undertaken on behalf of TfL by Sustrans with a steering group made up of officers from the five partner boroughs. Initially the Wimbledon Greenways, this study was proposed following London's

successful bid to host the 2012 Olympics with two primary aims:

- to provide facilities and other measures to allow walking and cycling to be an appealing and convenient means of travelling to the Wimbledon tournament and tennis event in 2012, and;
- to deliver a legacy to southwest London of a network of walking and cycling routes that will encourage people to travel in ways that benefit their health and the environment.

A consultation document was produced in October 2006, in partnership with consultants Mayer Brown. This detailed the concept of the network through scoping a number of greenway route alignments across the five boroughs highlighting: access to green spaces and other trip generators (in particular the tennis venue in Wimbledon), possible circular leisure routes and connections to other walking and cycling routes. For each of the seven greenways routes identified a list of key local stakeholders was established for consultation, along with a list of key central contacts, such as Living Streets, CTC, London Cycle Campaign, the Olympic Delivery Authority and adjacent boroughs.

The primary and most important change following the consultation, was a shift in focus from the Wimbledon and 2012 tennis tournaments to a wider network of routes that benefits local people on a day-to-day basis. This led to a stronger focus on providing walking and cycling routes that not only improve access to and between green spaces, but connect local people to schools, town centres, leisure facilities and a range of local amenities. The consultation also illustrated the need for a project focused on delivering new infrastructure, rather than soft measures.

Overall, 61% of respondents supported the proposals, 27% gave no view and 12% general negativity. The negative responses tended to concerns particular site proposals, which in turn led to a review of the particular routes. A feasibility report was published in April 2007 detailing the results of the consultation and pulling the proposed routes together to form a network. The next steps for the network were highlighted in this report, with

an overview of the schemes and funding required to deliver a complete signed network. This initial network was 191km in length.

#### **4.6 SW Greenways – Progress to Date**

The initial area study provided the five London boroughs with a framework to bid for TfL's Cycling on Greenways funding, recently renamed as Greenways. Further feasibility and consultation, and a number of design and implementation schemes, began on the network in 2007/8. In the 2.5 years following, the five partner boroughs have secured well over £1m in TfL Greenways funding to implement improvements on the network.

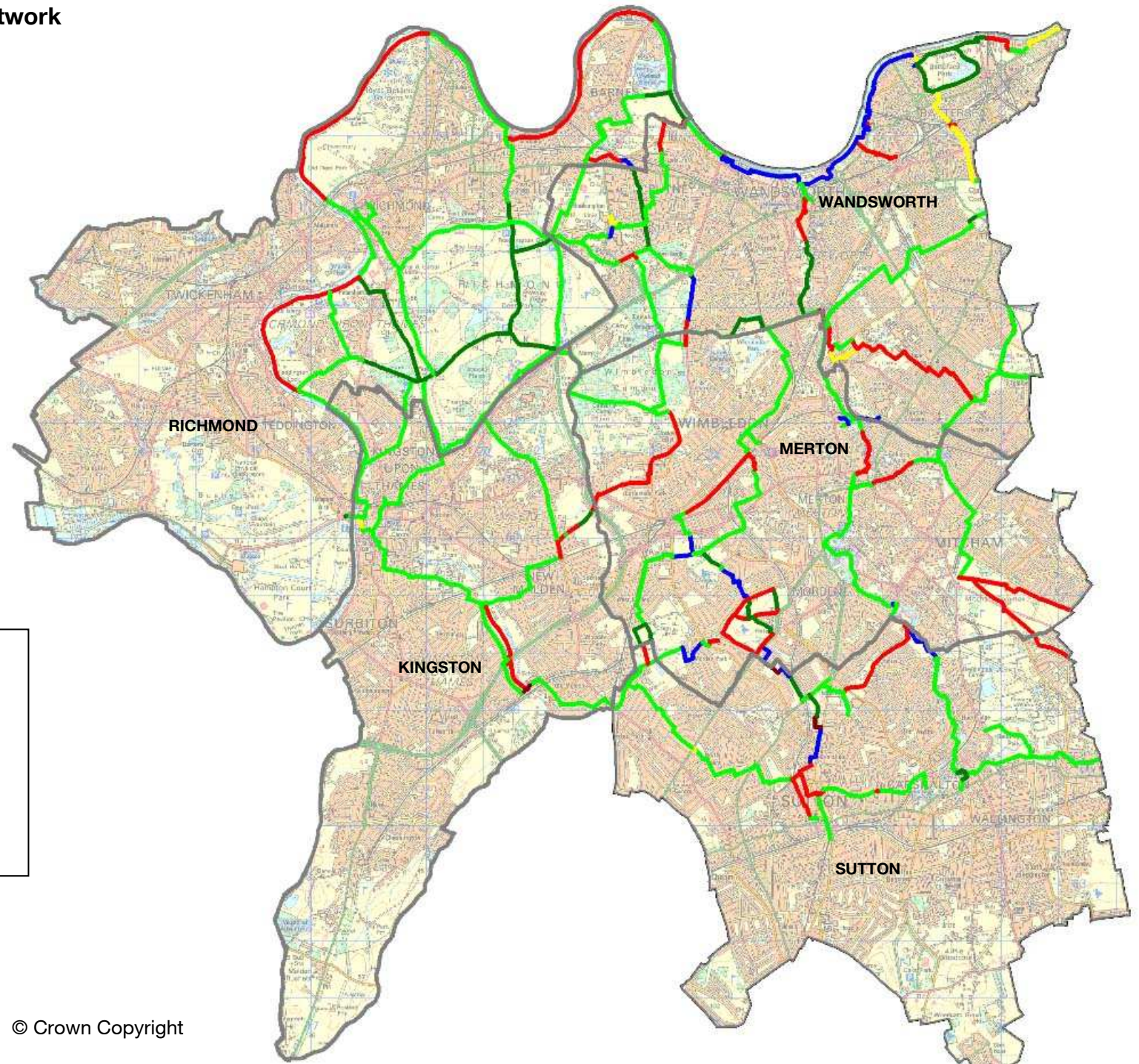
Within the three partner boroughs included in this network extension study improvements to date include:

- The resurfacing of Queen Elizabeth Walk, part of NCR4 (LB Richmond).
- A new walking and cycling route through Rosehill Recreation Ground (LB Sutton)
- Improvements to surfacing on Cambridge Avenue footpath and cycle track (RB Kingston)
- A completely new link through Glenthorne Gardens Recreation Ground (LB Sutton), improving access for all users and connecting to the local secondary school.

This year will also see the installation of a new cycle bridge over the Hogsmill River in Kingston, connecting the areas of Malden Manor and Tolworth. Further, the completion of a Pelican crossing at the A3 Robin Hood roundabout will effectively connect Wimbledon Common to Richmond Park. The routes identified in this study will form part of the Greenways programme in future years.

The map on the following page shows the current SW Greenways network, and the status of scheme development as of September 2009. Work is ongoing in 2009/10 which could see further changes, in particular the study the Thames Landscape Strategy is undertaking on 'restoration of the lost flood plain' connections to the Thames, for which a master plan is currently being developed.

# Current South West Greenways Network



**Key**

- Feasibility
- Consultation
- Design
- Implementation
- Complete, but not to Greenways Standard or delivered through another programme
- Complete to Greenways Standard
- Borough Boundary

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## 4.7 Constraints and Opportunities

### *Major Barriers*

In outer London the severance caused by major roads, rivers and railways is a significant barrier to developing a safe and accessible network. Heavily trafficked and wide roads are a common feature, with traffic speeds often higher than central London. These are the types of barriers that discourage people from cycling. It is important to address these issues wherever possible or find alternative routes. The area also has numerous railway lines, serving a large number of suburban railway stations. Linking the network with existing crossings is of paramount importance, however, often these may be narrow bridges, poorly lit underpasses or stepped crossings. While it is possible to identify improvements, these may often be expensive and take a number of years, while being reliant on external partners, such as Network Rail.

The River Thames offers challenges, particularly connecting the new network in the western half of Richmond to the existing network. Seven crossings exist between Hampton Court Bridge and Twickenham Bridge, including pedestrian bridges, vehicular crossing and a foot ferry. Some of which are more appropriate than others to incorporate into the network.

Overall the topography of the area is relatively flat, with some hilly areas in Sutton as you move away from the Thames basin.

The other challenge is providing good quality connections to town centres, which by their very nature are busy and heavily trafficked. This area has three major Town Centres, Kingston, Richmond and Sutton, and a large number of smaller but important local focal points, including; Surbiton, Teddington, Twickenham and Chessington. Connecting to these trip generators is key, but may be challenging when considering the greenways parameters.

### *Trip Generators*

Walking and cycling 'trip generators' are any destinations that people can travel to on foot or bike. The study area encompasses a vast number of trip generators including:

- Town Centres including, Kingston, Richmond and Sutton.
- Educational Establishments - large secondary schools and colleges, including; Richmond upon Thames College and St. Mary's College (Strawberry Hill).
- Healthcare establishments including Sutton General Hospital.
- Numerous green spaces and parks including The River Thames and Bushy Park.
- A number of suburban railway stations.
- Sports centres, leisure facilities and golf clubs.
- Tourist attractions, such as Hampton Court Palace and Chessington World of Adventures.

### *Green space*

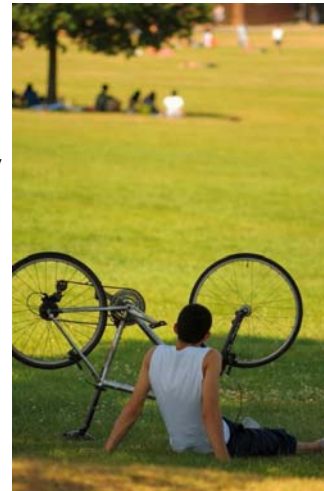
There are a huge variety of parks and green space in the study area. The most prominent and largest park is Bushy Park, one of the eight London Royal Parks, and lies directly north of Hampton Court Palace. The region is littered with a huge variety of green space, from borough parks and recreation grounds to private farms and golf clubs.

The River Crane runs through Richmond and connects to the River Thames. Bordering the river, Crane Park currently incorporates 33 hectares and connects into the London Borough of Hounslow, although there are plans to significantly increase the size of the park and establish it as a Metropolitan Park for London.

This variety obviously offers great opportunity for the network, and significant scope to link residential areas to green spaces.

### *Leisure and Tourism*

It is recognised that the network will serve utility and leisure purposes and therefore must cater for both. The presence of the River Thames and Hampton Court Palace in particular, and the existing NCN will ensure the area remains a pull for those living outside the region. The network should reflect this in the connectivity it provides to these key trip generators, but at the same time ensure that local journeys are supported wherever possible.



*Relaxing in a green space*

## 5.0 Potential network

### 5.1 Identifying the network

The proposed greenway network, which is described over the following pages was identified by Sustrans and the project steering group, based on these main principles:

*(1) Improve access into, through and between green spaces*

The greenways network should primarily be a 'green grid' of routes connecting local parks and green spaces. The routes should link residential areas and transport hubs (from where people may start or finish journeys) to green spaces and create conditions that will encourage people to walk, cycle and increasingly use their local parks and green spaces for health and recreation.

*(2) Provide for local walking and cycling journeys*

The network should provide for local walking and cycling journeys, both utility based and recreational.

This should include short recreational circular routes for cycling entirely within green spaces, which can be particularly valuable as places for children to learn to cycle.

The identified routes should also seek wherever practicable to link to trip generators (either through new connections or in combination with existing facilities) to cater for everyday walk and cycle journeys, such as trips to school or the shops.

*(3) Complement existing routes and promote local priorities*

Rather than being a network of entirely new routes, Greenways should complement and add to the provision of walking and cycling routes already in the area, based on local priorities.

The network will be formed of a combination of existing walking and cycling routes (either complete or in need of

development) and proposed new connections. The identification of greenways is an opportunity for existing local borough priorities to be addressed, for instance, through the inclusion of borough cycle routes which fit with greenways objectives of connecting to green spaces and following quieter streets.



*Raised side-road crossings improve conditions for pedestrians and slows turning traffic which benefits cyclists who are on the road.*

### 5.2 Desk study

The desk study involved mapping current routes, green spaces and trip generators. Desired routes were mapped, which was a five stage process, as follows:

- (1) Map spider networks dispersing from major trip centres;
- (2) Map potential links between green spaces;
- (3) Map cross borough routes;
- (4) Stage one to three were then collated with any overlapping or similar alignments selected;
- (5) The very indicative lines were then used during the site visits to aid the Route Development Officer when selecting alignments.

### 5.3 Indicative network

The opposite map was conceived early in the greenway network identification process to broadly set out what the network seeks to achieve in terms of the key

journeys and linkages that should be made.

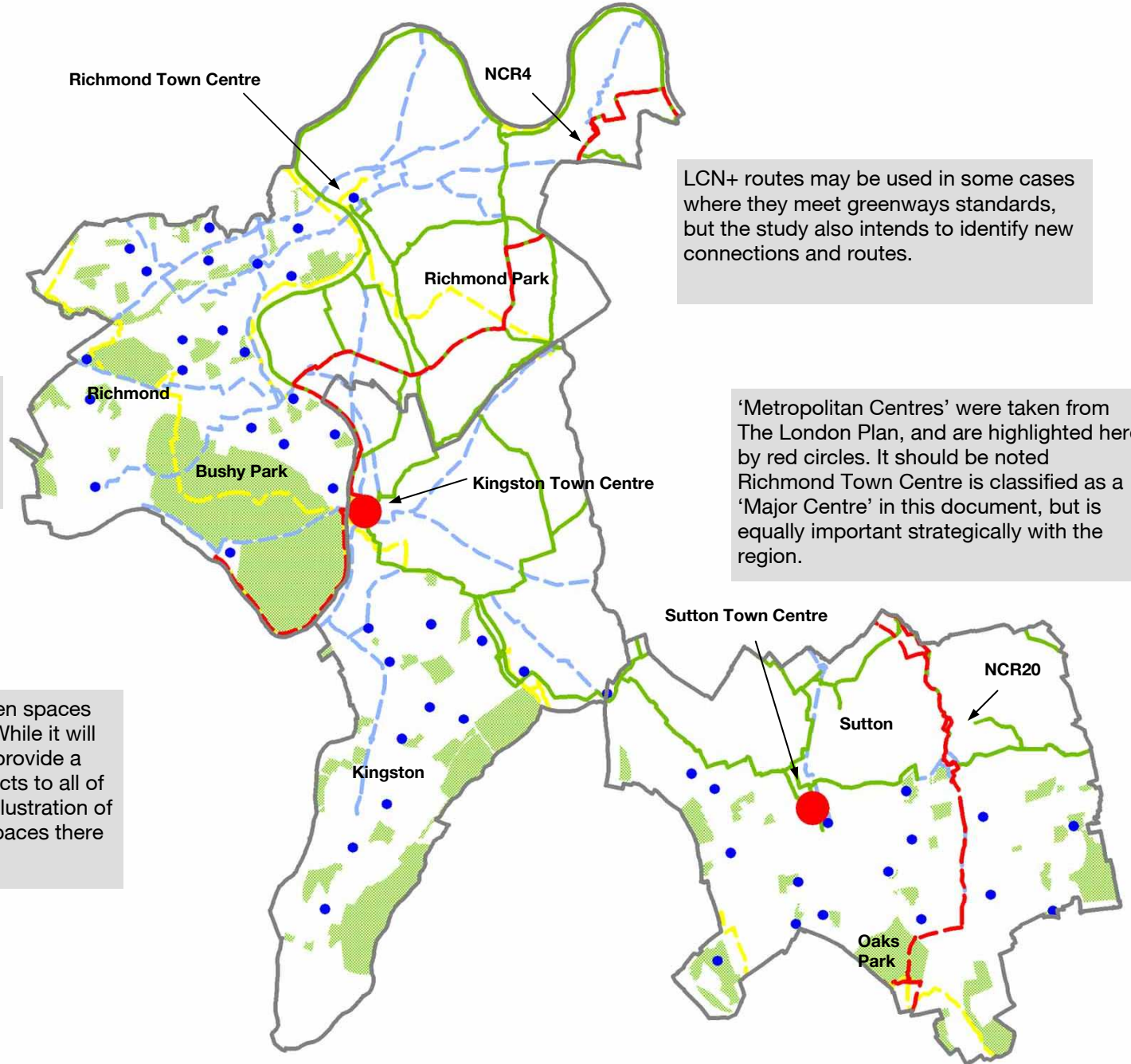
The map highlights the green spaces and major areas of trip generation and shows how these connect to the current networks.

The trip generators are broken down into primary and secondary importance. Primary generators are defined as major urban centres, and secondary generators defined as district centres, train stations, large healthcare centres and educational establishments.

The map work preceded the site visits, the key next step in developing the network. During this process the Route Development Officer cycled and walked, where practical, the previously unknown sections of the route, noting existing facilities, development opportunities and key barriers such as road crossings and gradients.

The following sections of the report show the network in detail and illustrate the key issues of the site visits. The network suggested in the following pages is the network on which consultation responses should be based.

## Area Overview – Richmond, Sutton and Kingston



LCN+ routes may be used in some cases where they meet greenways standards, but the study also intends to identify new connections and routes.

The blue circles represent standard trip generators, as listed in Section 4.7, these include large schools, town centres, hospitals, train stations and tourist attractions.

‘Metropolitan Centres’ were taken from The London Plan, and are highlighted here by red circles. It should be noted Richmond Town Centre is classified as a ‘Major Centre’ in this document, but is equally important strategically with the region.

The majority of green spaces are mapped here. While it will not be possible to provide a network that connects to all of these, it is a good illustration of how much green spaces there is in the region.

## 6.0 Section by section analysis

This section of the document examines the potential Greenway network on an area by area basis. The 'Current Situation' looks at a variety of aspects from current reports to proposed improvements. The 'Network Routes' section briefly describes the spinal routes which form the basis of the network in each area.

*Note: The report does not aim to provide a complete breakdown of the work necessary but should act as a guide, highlight priority areas and significant barriers. Detailed implementation, feasibility and design must be investigated at a later stage. The report recommends routes that Sustrans feels can be upgraded to meet Greenways design principles. However, these alignments may alter at a later stage if a more appropriate alignment or an unforeseen problem presents itself.*

### 6.1 London Borough of Richmond

#### Background

The borough covers an area of just under 58km<sup>2</sup>, has a population of 180,000, a river frontage of 34km and over 100 parks and green spaces, dominated by Richmond Park and Bushy Park. The River Thames effectively cuts the borough in two, with this study focusing on the Middlesex (western) half, including the districts of Twickenham, Teddington, Hampton and Whitton. On its north western side the borough neighbours Hounslow, part of the NW Greenways survey undertaken in 2008/9. It was therefore vital to study this report and ensure synergy with the proposals.

#### Current Situation

*Coloured letters and numbers refer to those on the map*

#### A. Thames Towpath

The combination of walking and cycling on the towpath is a sensitive issue, particularly on the Surrey (eastern) towpath where certain sections currently remain pedestrian only. There is no continuous towpath on the western bank, with three separate sections in the borough; between Hampton Court and Kingston Bridge, Richmond Bridge and Twickenham and a short section to the north of Twickenham Bridge. Cycling is currently permitted on these sections with clear pedestrian priority. There is also cross over with the SWN on the first two sections.

#### B. River Crane

The River Crane offers an established and attractive walking and cycling connection from Kneller Gardens to Hanworth Road. The River Crane Walk is a signed and promoted walking route of approximately 9km. Planned improvements include a raised table crossing at Meadway and a new shared use path in Kneller Gardens linking to a new pedestrian and cycle bridge over the Duke of Northumberland's river. Development opportunities include the connection into the London Borough of Hounslow through the Feltham Marshalling Yards and the Royal Post Office connection to the west of Twickenham train station.

#### C. National Cycle Route 4

NCR4 runs along the towpath between Kingston Bridge and Hampton Court; a highly popular section of shared use route for pedestrians and cyclists.

#### D. Bushy Park

By far the largest green space in the study area and managed by the Royal Parks. It is the second largest Royal Park at 445 hectares. The park has an established LCN+ route running through the north west corner of the park; link 168. This report proposes extending the cycle routes within the park, a decision on this matter is to be made following negotiations with the Royal Parks.



*Bushy Park—Proposed Link*

#### Network Routes

*Note: the proposals are described in relatively general terms given any measures recommended will be subject to further investigation.*

**1. Between Hampton Wick and Hampton via Bushy Park:** This route would use existing paths within the park to connect Church Grove to High Street via the Diana

Fountain in the south of the park. All paths are at least 3m wide, offer a good surface and are well maintained - many could be considered exemplar greenways and the perfect environment for less confident cyclists. Cycling is currently

only promoted on established LCN+ routes. Leaving the park the link continues along residential roads before reaching Hampton Station and beyond to the Stain Hill East Reservoir and into Surrey.



*Restricted Access to Fulwell Park*

**2. Between Fulwell Park and Bushy Park:** Fulwell Park is a large and well used green space that requires access improvements. It does however have toucan crossing links at either end of the proposed greenway route, a major plus. The wider connection links to a number of schools on Hanworth Road before connecting to Bushy Park. Further feasibility is required on the connection along Uxbridge Road as it is heavily trafficked and relatively wide.

**3. Between the River Crane and Teddington:** An on road connection linking both Teddington Town Centre and Teddington Lock to the River Crane, whilst connecting to a number of local schools. Many of the cycle facilities along this section have already been delivered to a high standard, with minor improvements and signing required. There is also the potential option to use Teddington Cemetery as a link avoiding local busy roads.

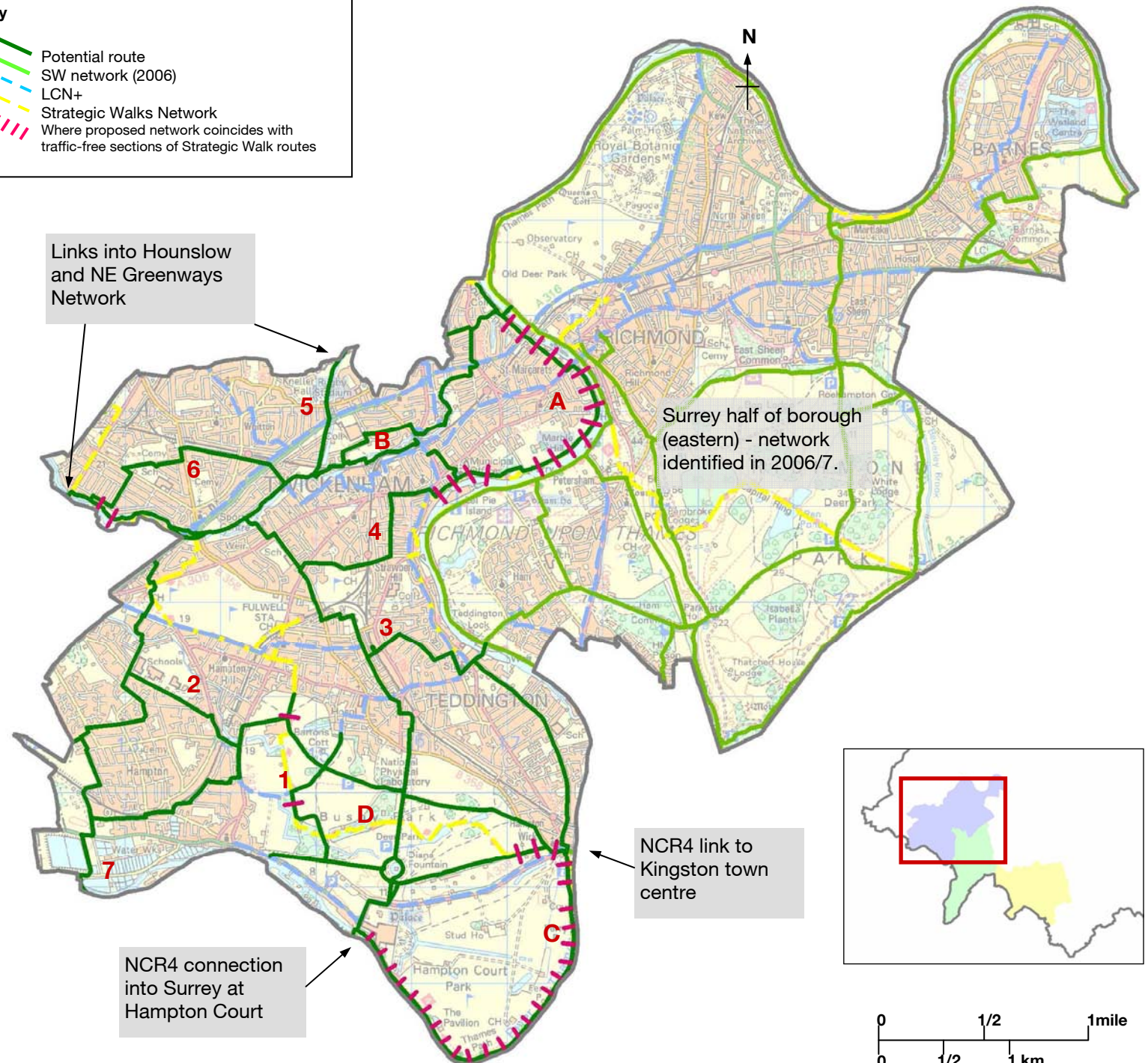
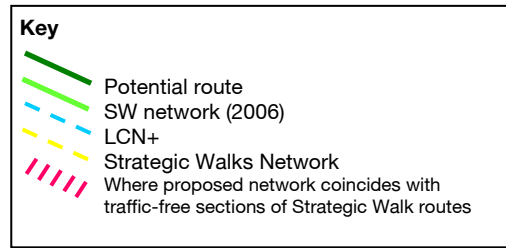
**4. Between Strawberry Hill and Twickenham:** A 'quiet road' alternative to the LCN+ link along Cross Deep (A310), offering a connection along Heath Road to Twickenham riverside. However, the Heath Road link would require further feasibility to determine suitable options for development as a Greenway. Grove Avenue

and Station Road could provide an alternative option and a direct connection to Twickenham Station.

**5. Duke of Northumberland's River:** While a long term aspiration, this could provide a direct green link from the River Crane into the London Borough of Hounslow. The River runs north south past Harlequins and Twickenham Rugby Grounds. A feasibility study is necessary in order to determine the cost and land acquisition issues, with any route likely to fall along the towpath.

**6. West River Crane to Whitton Links:** Increasing connectivity to the River Crane is a key aim of this network, given the quality of route the park provides. Whitton offers an easily accessible starting point and trip generator in itself. The key challenge is the provision of an at-grade crossing of the A316 Chertsey Road between Jubilee Ave and Meadway, currently a poorly lit subway. An at-grade crossing would be of significant benefit, and link directly into to the improvements works planned for Kneller Gardens.

**7. Sunnyside Bridge:** Initially conceived by TOPS (Thames Overways Projects), this proposed pedestrian and cycle bridge would connect Richmond to Surrey, adjacent to the Sunnyside Reservoir. A feasibility study was completed in 2001 by Whitby Bird & Partners on the most suitable alignment, which would benefit a substantial number of local trip generators and provide a crossing between existing bridges at Hampton Court and Walton-on-Thames. The existing crossing points for the network are Richmond Lock, Teddington Lock, Kingston Bridge and Hampton Court.



## 6.2 Royal Borough of Kingston upon Thames

### Background

In terms of geographical area, Kingston is a relatively small borough, covering just under 39km<sup>2</sup> (RBK, Borough Profile 2008). The study area covers 7 of the borough's 16 wards, from Chessington South to Berrylands, and borders Surrey for the majority of its length. The 2001 census measured a population of 147,000, smaller than any borough in London apart from the City. This census went on to show that 24% of residents do not have access to a car, lower than the London average at that time of 37%. The borough has a huge variety of green space, including recreation grounds, farm land, borough parks and the Hogsmill River.

#### Current Situation

Coloured letters and numbers refer to those on map

#### A. Hogsmill River—SWN

The Hogsmill River is a tributary to the River Thames. It rises in the Ewell area of Surrey before crossing the borough and joining the River Thames in Kingston Town Centre. The Hogsmill Valley Walk follows the river, which effectively marks the border of the Greenways study area to the south. The section of the river which this study identifies as a possible key connection is between Kingston Road and Knollmead, following the alignment of the river through numerous green spaces.

This would feasibly connect with the new cycle bridge over the Hogsmill River connecting into Sheephouse Way and Malden Manor train station. It should be noted the greenways proposal follows the alignment of



Site of new Hogsmill cycle bridge to be installed in 09/10 as part of current Greenways programme

the LOOP at this point; improvements to signing, surfacing and access points would benefit a wide range of users. Detailed feasibility and local consultation would be required prior to any improvements.

#### B. Ewell Links, Surrey

A number of high quality greenways routes have been delivered just to the east of the borough. While not within London, and therefore unable to be mapped on the pan-London network, the shared use routes along the Bonesgate Stream in Ewell do provide a key north south connection and could feasibly connect into the new link proposed in Section A. There are also a number of established routes in Horton Country Park. This network connects from the Chessington area.

#### Network Routes

Note: the proposals are described in relatively general terms given any measures recommended will be subject to further investigation.

**1. Surbiton Links:** Surbiton is one of the largest town centres within the study area, and already well connected by the LCN+, which is primarily used to connect with Kingston Town Centre to the north. The aim of the Greenways network was to provide a supporting link to the south, suited to less confident and novice cyclists. This has been achieved primarily using quieter residential roads. Primarily, this would require improvements to directional signing, with the possibility of minor infrastructure work.

**2. Between Chessington South and Surbiton:** A major barrier within the borough is the A3 which effectively cuts the study area in two. The underpass to the east of Hook Road is one of the better crossing points. It connects Chessington to Surbiton. The crossing of Hook Road between Elm Road and Clayton Road should also be considered. The Greenways link to the south avoids the busy Leatherhead Road, following residential roads to its west, linking in with a local school and The Merritt Medical Centre.

**3. Chessington South east/west Surrey Links:** Given the long and thin shape of the southern half of the borough, connections east and west into Surrey have been considered. Chessington South train station offers

the perfect start or end point for journeys. Barwell Lane offers a possible connection to Claygate, Chalky Lane, Horton Country Park, as well as West Park, Epsom & Ewell and Parklands Day hospitals. Further feasibility would be required on both routes. It should be noted that the proximity of Chessington World of Adventures, open between March and October, is also a substantial trip generator and at present has no information on their website on arriving by bike. The network as proposed would help to provide safe and accessible routes for cyclists to access the theme park.

**4. Between Berrylands and New Malden:** This connecting route includes a possible recreational circular route in Alexandra Park. This is a well-used green space which consists of a playground, tennis courts, cricket and football pitches. Its size and proximity to Tolworth Town Centre makes it a popular green space. This link itself connects the south of the borough to Berrylands via an existing network towards New Malden. Primarily quiet residential roads are used to connect into Alexandra Park.

**5. Chessington and Tolworth Park links:** This section of the network links a large number of the area's green spaces which includes Church Fields Recreation Ground and King George's Field. The second of these is the borough's largest recreation ground at 34.5 acres, yet has no established cycle route, offering a great opportunity through the site. A railway line and the A3 run directly to the west of the playing fields, a major challenge when improving access. Corinthians Casuals Football ground is at the south end of the playing field.



Existing shared-use path adjacent to Chessington World of Adventures



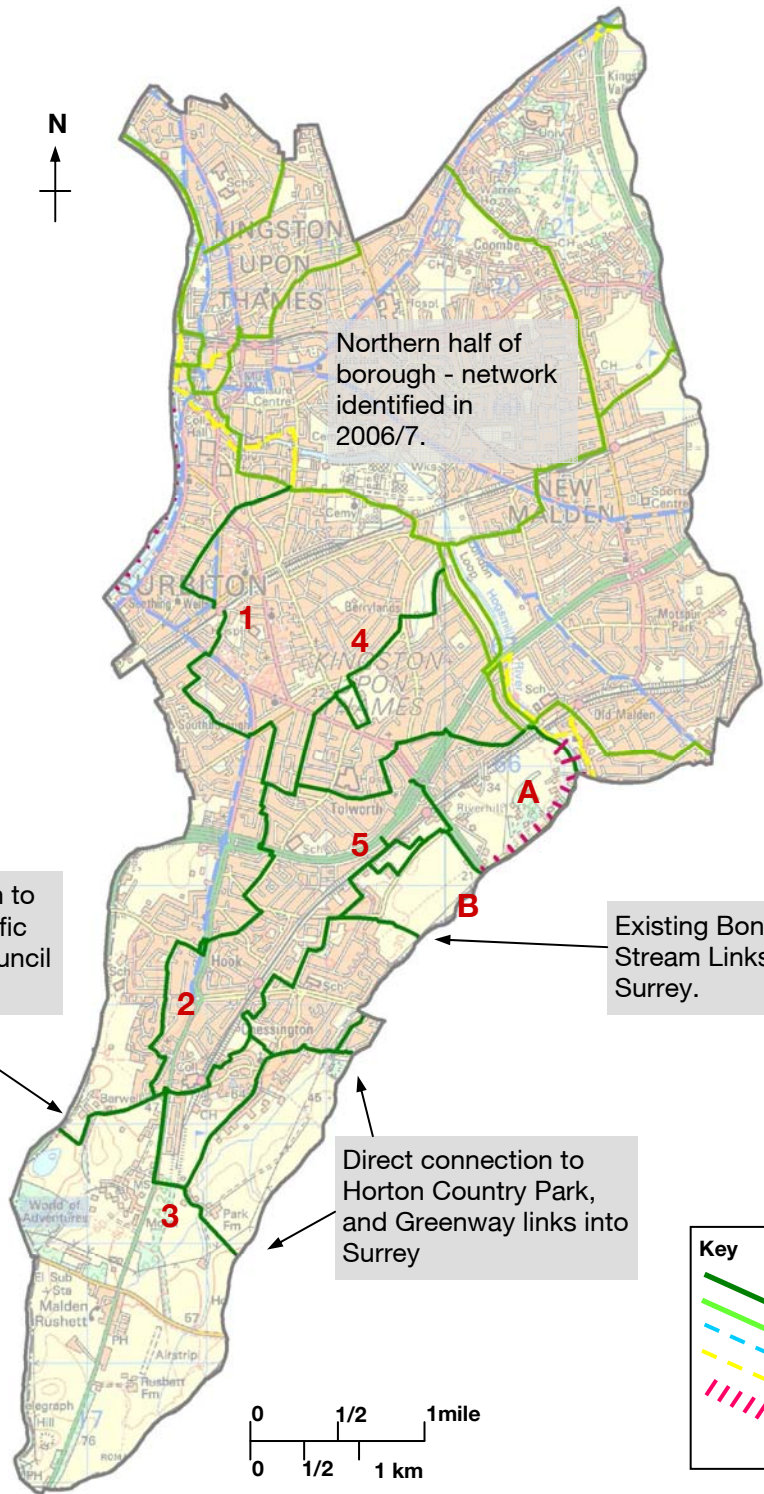
Existing path in Church Field Rec. Ground

There are direct connections to Cox Lane and a large number of businesses which are substantial trip generators. An existing traffic free link also connects Cox Lane into Surrey. At its northern end, the route follows the traffic free Hogsmill River, exiting adjacent to Kingston Road, providing a connection to Kingston Town Centre.

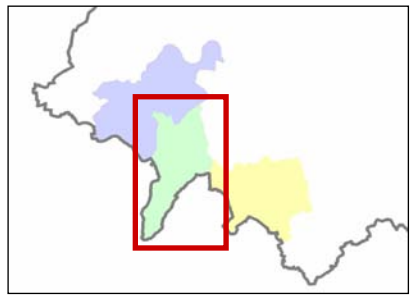
Greenways connection to Claygate, primarily traffic free, part of Surrey Council cycle network.

Existing Bonesgate Stream Links into Ewell, Surrey.

Direct connection to Horton Country Park, and Greenway links into Surrey



Northern half of borough - network identified in 2006/7.



**Key**

- Potential route
- SW network (2006)
- LCN+
- Strategic Walks Network
- - - Where proposed network coincides with traffic-free sections of Strategic Walk routes

## 6.2 London Borough of Sutton

### Background

In terms of size, Sutton sits in the middle of the two previous boroughs at 43km<sup>2</sup> and borders the boroughs of Kingston, Merton and Croydon along with Surrey to the south. It is one of five London boroughs without a London Underground Station, and has an extensive network of suburban train lines in the northern half of the borough. Geographically the borough is the hilliest of the study area. This in turn creates more of a challenge when trying to identify a practical network.

#### Current Situation

Coloured letters and numbers refer to those on the map

#### A. NCR20

National Cycle Route 20 splits from the Wandle Trail in Carshalton, continuing south along Park Lane, Boundary Road and Telegraph Track before heading towards Oaks Park. The route has recently been re-signed by LB Sutton with TfL Greenways funding and is an established part of the National Cycle Network, although the route alignment within Oaks Park is still in need of clarification.

#### B. LOOP

The London Outer Orbital Path (LOOP), part of the SWN intersects with the outer part of the borough along Grove Lane and for a short section within Oaks Park (LOOP Section 7; Banstead Downs to Bourne Hall Park). The Grove Lane section has also been proposed as a possible alignment for Avenue Verte; a London to Paris cycle route currently in early feasibility stages.

#### C. LCN+

The LCN+ is not found in the southern section of the borough, therefore increasing the strategic importance of the Greenways Network within the study area.

#### Network Routes

Note: the proposals are described in relatively general terms given any measures recommended will be subject to further investigation.

**1.** Between Worcester Park and Belmont: This route is proposed to connect a number of green spaces between the two destinations as well as pass through the Cheam District Centre. Cuddington Recreation

Ground requires a new path, as does Cheam Recreation Ground. There is also an opportunity for a new access point into Cheam Recreation Ground, as shown in the photo.



A possible connection to Cheam recreation ground, currently blocked at Ashmere Close

South of Cheam the network connects to Belmont via residential roads. However, the bridge to the south of Belmont Station is dominated by poor visibility, steep gradients and fast moving traffic.

**2.** Between Belmont and Sutton: A north-south connection, the focal point being improved connections to Overton Grange High School, and potential links through the adjoining sports ground. Strategically this provides a quiet connection between the two town centres while avoiding the busy A217; Brighton Road. An established green link connecting Bradley Close to Knockholt Close also provides direct access to Belmont. Unfortunately, connecting to the station entrance requires navigating the bridge mentioned above.

**3.** Between Belmont and Oaks Park: The primary east-west connection in the south of the borough, linking Belmont to Oaks Park and NCR20. Direct connections are provided with both Sutton General Hospital and The Royal Marsden Hospital via residential roads. The connection through the north of Oaks track is currently only suitable for off road bikes, with certain sections likely to be difficult to pass through after periods of poor weather. This worn track is well used by pedestrians, cyclists and horse riders and is a valuable traffic free connection. Any improvements to surfacing or signing would be subject to detailed local consultation as cycling has been a contentious issue in the past.

**4.** Carshalton Beeches Link: This links closely follows

the alignment of NCR20. However, direct access is provided to a number of trip generators and green spaces. Stanley Park offers a wide pedestrian path around three sides of its perimeter and directly connects to the local school; an ideal opportunity for a traffic free circular route. However, the legality of cycling on this section is restricted by their footpath status. Further north, Carshalton Park offers continued access to green space and facilities including tennis courts, a playground and new cycle parking.

#### 5. Wallington into LB Croydon:

From Wallington Station this section of the network connects through Mellows Park towards LB Croydon and the SE Greenways network. There are opportunities here for two new sections of Greenways route.






Firstly, a new path through the sports ground between Redford Avenue and Mollison Drive and secondly, a north-south connection through Roundshaw Park, the southern half of which is a nature reserve and therefore will require particular attention. This route also connects with Wilson's School and local sports facilities.

**6.** Pyl Book Link: This additional link was requested by the London Borough of Sutton, and connects Green Lane and Worcester Park station to Sutton town centre. This link would require a new connection through the Hamptons housing site, connecting to Green Lane. An alternative alignment could exist along PRW35, if this proves unfeasible. Residential roads connect the Pyl Brook path to Sutton and the Hampton site. The Pyl Brook path itself has recently been resurfaced and widened, offering a direct traffic free connection into Sutton town centre, with local consultation due to be undertaken shortly on legally allowing cycling.



Path requiring widening if permitted for shared use, Carshalton park

**Key**

-  Potential route
-  SW network (2006)
-  LCN+
-  Strategic Walks Network
-  Where proposed network coincides with traffic-free sections of Strategic Walk routes

