

CHAPTER 12

PROGRAMME AND FUNDING IMPLICATIONS

12.1 Introduction

- 12.1.1 This chapter lays out the programme to deliver the proposals. It consists of a list of transport schemes or measures that will be undertaken to achieve one or more proposals together with estimated costs for the programme. The programme is subject to funding and the successful consultation of each scheme. The costs of delivering this programme have been estimated, however they should be treated as indicative at this stage.
- 12.1.2 Overall the Borough is aiming for a similar level of spending over each of the three years of the LIP. The 2009/10 figures are moderately lower than the preceding two years but some of the total spend is variable from year to year (e.g. Local Safety Schemes) and some proposals are not yet known. The Borough is confident that the 2009/10 estimated spend will be similar to 2007/08 and 2008/09.
- 12.1.3 It is possible that the estimated spend will vary from the estimates shown but only moderately.
- 12.1.4 Lastly, it is noted that the LIP Matrix in Appendix B may also provide useful information to this chapter, in particular, points on the programme.

12.2 Programme Design

- 12.2.1 The programmes have been designed to primarily deliver those borough objectives that have a national and/or regional Best Value Performance Indicator Target (refer to chapter 9 for details).
- 12.2.2 The programme has also been designed with the primary funding sources currently available for public realm programmes which include TfL, internal Council capital and S106 contributions.
- 12.2.3 The estimates do not reflect the importance of one topic area over another. For instance there are some programme areas made up of non-physical measures but they are nevertheless important to achieving the council objectives.
- 12.2.4 'Table 12.1: Summary of Proposed Spending 2007/08-2009/10' outlines what resources are anticipated to be required to implement the Borough proposals through until 2009/10. It is acknowledged that the total required for each year is higher than the current level of funding and that adjustments may be required on an annual basis to the projected programme. However, in order to indicate the full range of schemes that the Borough aspires to undertake, it has been necessary to provide a comprehensive array of proposals and consequently a high funding requirement.

Table 12.1 Summary of Proposed Spending 2007/08-2009/10

Proposal	Form 1 (cross reference)	Funding from LIP Funding Submission (£000's)				Funding from sources other than LIP Funding Submission (£000's)			
		Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
Local Safety Schemes	1a		850	675	75				
Speed Reduction Measures (20mph zones)	1b		680	400	350				
Road Safety Education and Training	1c		68	40	40				
School Travel Plans/Safer Routes to School	1d		300	300	300				
Workplace Travel Plans	1d1		35	50	50				
Community Safety and Security	1e						150	150	0
Principal Roads	2a		3050.85	3009	3537				
Local Roads Maintenance	2b						6500	6500	6500
Street Lighting	2c						250	250	250
Pedestrian Crossing Programme	2d		60	180	220				
Bridges and Structures	2e		384	450	450				
Bus Priority	2f		1725	1700	1750				
Parallel Initiatives	6		10	250	250				
Freight	2g		45	100	50				
Area Based Schemes (Town Centres; Streets for People; Station Access)	3a		1670	2350	260				
Signs, Lines and Street Clutter Rationalisation	3b						196	196	196

Chapter 12: Programme and Funding Implications

Local Implementation Plan
London Borough of Richmond-upon-Thames

Proposal	Form 1 (cross reference)	Funding from LIP Funding Submission (£000's)				Funding from sources other than LIP Funding Submission (£000's)			
		Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
Sub Total (page 1)			8877.85	9700	7628		7096	7096	6946
Parking and Enforcement Action Plan	3c						1150	1150	1200
Secure Motorcycle Parking and Signing	3c1		25	0	0				
Taxis and Private Hire Vehicles	3d		0	20	100				
Local Area Accessibility	4a		220	71	71		70		
Local Area Accessibility- signage deficiencies	4a2		0	25	50				
Walking	4b		90	220	255				
Cycling: Cycle Training, Cycle Parking, Cycle Strategy	4c		60	45	35				
Cycling- non-LCN+	4c1		205	310	10		100		
Cycling- LCN+	4c2		770	425	700				
Bus Stop Accessibility	4d		188	200	200				
Travel Awareness	5a		70	35	40				
Environment- Air Quality, Noise, Biodiversity, Waste	5b		85	168	160				
Water	5c		0	5	5				
STAN Study	5a1		0	20	100				
Sweltrac Programme (Borough only)- requested by Sweltrac through their Funding Submission	7						529	592	224
Sub Total (page 2)			1713.00	1544	1726		1849	1150	1200
+ Sub Total (page 1)			8877.85	9700	7628		7096	7096	6946
Total			10590.85	11244	9354		8945	8246	8146
Sweltrac (non-Borough Specific)	7a		415	441	374				

12.3 Programme Details

- 12.3.1 The following paragraphs outline the programme to deliver the proposals set out in Chapter 5 and Appendix A.

12.4 Road Safety

- 12.4.1 The Council's Road Safety Plan (ref. Chapter 6) lays out the principles for developing the local safety scheme programme. It is designed to protect all road users from accidents, particularly focusing on vulnerable road users including pedestrians, cyclists and motorcyclists. The trend in road traffic accidents is that a higher percentage is related to attitudinal issues although there are still a significant percentage that can be alleviated with physical measures. Because of this the Council will be continuing with its programmes of monitoring, engineering and education to help reduce casualties in the Borough. The Council proposals under this programme are as follows:

- Local Safety Schemes – Delivering an accident remedial programme.
The schemes are selected on an annual basis and prioritised by analysing accident data from across the whole Borough provided by the LAU. Measures include single site, route action plans, area wide treatments and mass action plans for casualty reduction.
- Speed Reduction Measures – Prioritised where there is proven rat running, speeding and resident support. Including safety and red light cameras at accident hotspots:
- Road Safety Education, Training and Publicity – Programme to include schemes like Walking Buses, Powered Two-Wheeler Safety, Adult Road Safety Campaigns, Cycle Training, working with Travel Awareness Projects Introduction of approved School Travel Plans to all primary and secondary schools in the borough with a monitoring process.

- 12.4.2 There are several BVPI's related to casualty reduction and the Borough is keen to achieve the targets ahead of time and then continue to retain a low casualty profile. The estimates below are based on achieving all targets by 2010 with a monitoring and maintenance programme for a further five years.

- 12.4.3 Relevant schemes are detailed within:

RUTLIP form 1a- Local Safety Schemes
 RUTLIP form 1b- Speed Reduction
 RUTLIP form 1c- Road Safety Education and Training
 RUTLIP form 1d- School Travel Plans/Safer Routes to School
 RUTLIP form 1e- Community Safety, Security and Partnerships
 RUTLIP form 2d- Pedestrian Crossing Programme

12.5 Principal Road Maintenance

- 12.5.1 Well-maintained roads are crucial to enable the efficient and safe movement of people around the Borough. The Mayor's Transport Strategy highlights the importance of clearing the backlog of maintenance where it is most needed, to prevent more serious damage to the infrastructure.

- 12.5.2 The Traffic Management Act 2004 (ref. Chapter 2, paragraph 2.1.2 for details) proposes a strategic road network that forms part of the principal road network. The Act also responds to the problems of utility companies working on the public highway by providing new procedures to deal with both the programming problems and the post works repairs of the highway.

12.5.3 The state of repair of the principal road network is measured by detailed visual inspections (DVI's) to establish the degree of maintenance or reconstruction that is required. These DVI's are supplemented by machine-based surveys. Following these surveys, each length of the road network is given a structural condition index rating. A higher number indicates that the road is in greater need of attention. The survey results are also analysed using well-established guidelines to produce proposed treatments and their likely costs.

12.5.4 Structural condition indices are grouped into four categories as follows:

0 to 30	Good state of repair or few significant defects
30 to 50	Requires resurfacing, patching or surface treatment
50 to 70	Urgent need for resurfacing to prevent major works
70 plus	Need for reconstruction

12.5.5 To ensure that the principal road network does not fall into structural disrepair, a corresponding revenue funded maintenance programme is necessary. The current revenue funding prioritises areas of the principal road network with emergency hotspots and insurance claims.

12.5.6 Relevant proposals are detailed within:

RUTLIP form 2a- Principal Road Maintenance

12.6 Local Roads

12.6.1 The condition of the local roads is measured in a similar manner to the principal roads. Local Roads have stretches of carriageway and footway that are in structural disrepair above the 70+ category.

12.6.2 It is becoming increasingly difficult to consult on schemes that recommend improvements in an area that does not include the repair of the footway and carriageway. The Council is aware that improving the condition of the local road network could have significant effects in terms of casualty reduction and noise levels. Funding is continually being sought to address this issue.

12.6.3 Prioritisation for programming subject to funding granted will be given primarily to roads, both footway and carriageway, measured as in the worst state of repair. Whilst there remain many roads in equally severe conditions a second factor involving programme delivery is the amount of funding available.

12.6.4 Relevant proposals are detailed within:

RUTLIP form 2b- Local Roads Maintenance

12.7 Street Lighting

12.7.1 There are a large number of lamp columns in the Borough that are overdue for replacement. The priority goes to the longest overdue. A column is estimated to have a 30-year lifespan. Replacement is to BS5489.

12.7.2 There are currently some 14,600 items lamp columns and over 7,109 are ageing concrete columns that have exceeded their intended design life of 30 years. The estimated cost to replace these poles is around £7.5 million. At the present level of funding, the Borough will struggle to meet the cost of replacing the poles and will have to find other sources of funding in the coming years.

Column Height (metres)	Quantity of columns	Quantity over 30 yrs old	Cost to replace (£'000)
5 and under	11,180	6,711	7,019
6	329	0	0
8	673	330	424
10	2,493	68	87
Totals	14,675	7,109	7,530

12.7.3 Relevant proposals are detailed within:

RUTLIP form 2c- Street Lighting

12.8 Drains

12.8.1 As with all Boroughs, there is a significant problem with the drainage systems. Capacity and provision is made for urgent remedial measures although these should all be rechargeable to Thames Water Authority.

12.9 Bridges and Structures

12.9.1 Prioritisation of the bridge-strengthening programme is co-ordinated through the London Bridge Engineers Group (LoBEG). Surveys and assessments are carried out in partnership with the London Technical Advisory Group (LoTAG) and LoBEG. If the need for bridge strengthening is established, a three-step process is followed:

- A bridge strengthening feasibility study is carried out;
- A bridge strengthening design process is undertaken to design and estimate the costs of any works that are needed; and
- If the estimates are approved then the works are prioritised for implementation.

The Borough proposes spending of £384k for 2007/08 followed by £450k for each of years 2008/09 and 2009.10. It is considered that this level of funding would enable a sustainable level of work to be undertaken whilst keeping on track with work to various bridges and structures. Some funding is being sought elsewhere for new footbridges over rail lines and upgrades to existing footbridges.

12.9.2 Relevant proposals are detailed within:

RUTLIP form 2e- Bridges and Structures

12.10 Bus Priority

12.10.1 The Council programme is designed to address both the smoother running of bus services within the Borough and the overall confidence of the community in using public transport. It supports the LBP objectives of delivering key priority measures on busy bus corridors together with parallel initiatives in order to meet the needs of different road users such as cyclists, pedestrians and car users.

12.10.2 The Council would like to continue its programme of bus stop accessibility improvements across the Borough, the elements of this programme include:

- Review and possible relocation of bus cages; and
- Review and possible relocation of waiting restriction signs and markings to aid enforcement.
- Consideration of bus clearways
- Increase kerb heights
- Footways repaved or upgraded,
- Review of lighting at bus stops will be reviewed to improve personal security.
- Street clutter removal.

12.10.3 Due to the concerns of local people the Council will continue to work with TfL and London Buses to increase the standards of the bus operators' service provision. Improvements will lead to bus drivers being made aware of the needs of different vulnerable users in their service provision.

12.10.4 Relevant proposals are detailed within:

RUTLIP form 2f- Bus Priority
RUTLIP form 6- Parallel Initiatives

12.11 Freight Management

12.11.1 Lorries play an important part in the distribution of goods within Richmond. An efficient delivery system is vital to Richmond's economy and residents' ability to access goods and services. Although the Council would like to see less freight carried by road, it recognises that lorries will continue to play an indispensable role in local deliveries. The Council is keen to participate with the following initiatives to improve the relationship between business needs and residents concerns: London Sustainable Distribution Partnership (LSDP).

London Lorry Control System

The following schemes are programmed to be developed:

- Progression of Freight Quality Partnership—through the SWELTRAC partnership to increase measures to assist freight distribution and reduce local environmental problems.
- Richmond Town Centre – review waiting and loading restrictions, rationalise servicing in George St.
- Twickenham Town Centre – review waiting and loading restrictions.
- Reviewing HGVs in Bus Lanes (possible experiment).
- Holly Rd Business Park—improve HGV access/egress arrangements.
- Colne Rd HGV access/egress management plan.
- St Margarets Business Park – HGV access/egress management plan.
- Third Cross Rd – HGV access/egress management plan.

12.11.2 Relevant proposals are detailed within:

RUTLIP form 2g- Freight

12.12 Area Based Schemes

12.12.1 The following three topics Town Centres, Streets for People and Station Access will be designed in line with TfL guidance for Area Based Schemes for which the borough was represented on the pan-London working group. The key objectives for this programme are as follows:

- Improve the physical and living environment
- Reduce vehicle dominance and create attractive outdoor living spaces
- Improve personal security and reduce the fear of crime, particularly for travel during the hours of darkness
- Increase the opportunities for local people to use streets as social spaces
- Reduce social exclusion
- Facilitate regeneration and increase transport opportunities for local communities, whilst encouraging shorter journeys to be made
- Reduce the adverse effects of traffic

- Improve conditions for cyclists, pedestrians and bus users to encourage more journeys by these modes
- Improve accessibility of the public transport network for everyone.

Map 5.1 in Chapter 5 shows the locations of the various Area Based Schemes across the Borough, together with the schemes proposed through Sweltrac.

12.12.2 **Town Centres**

12.12.2.1 The Town Centres are as follows:

- Richmond Town Centre
- East Sheen
- Teddington
- Twickenham
- Whitton.

12.12.2.2 The aims of the improvements include:

- To sustain and enhance an economically viable and vital Town Centre with a range of premises for different uses;
- To increase the variety of leisure activities available;
- To ensure all the facilities are easily accessible;
- To make the town centre a safe and secure place to be;
- To improve public transport availability and connections.

12.12.3 **Streets for People**

12.12.3.1 Richmond has unique village environments where a 'Streets for People' type programme is appropriate. It provides the opportunity to enhance the holistic environment of local shops or green space improving safety and accessibility to enable all stakeholders to fully benefit. The following areas are to be considered for this programme:

- Barnes
- Kew
- Ham
- Hampton Hill

12.12.4 **Station Access**

12.12.4.1 Many of Richmond upon Thames' stations are located in residential areas and are vital for people to access employment, shopping and leisure facilities. Many of these stations also serve as local interchanges with bus services, although the interchange between bus and rail services is often long and inconvenient. Some of these stations are isolated from areas of major activity and suffer from safety and security issues, which can be either actual or perceived.

12.12.4.2 Many of the Borough proposals in this area are delivered in partnership with Sweltrac, particularly the station access programme. It is noted that the Borough is not able to undertake works on the Stations as Network Rail and South West Trains undertake this.

12.12.4.3 Relevant proposals are detailed within:

RUTLIP form 3a- Area Based Schemes
RUTLIP form 5a1- STAN Study
RUTLIP form 7- Sweltrac Programme

12.13 Streetscape

12.13.1 All programme areas affecting the road network will include an element for street clutter removal and a rationalisation of signage to enhance the streetscape.

12.13.2 Relevant proposals are detailed within:

RUTLIP form 3b- Signs, lines & street clutter rationalisation

12.14 Parking and Enforcement Plan

12.14.1 The Borough Parking and Enforcement Plan is contained in Chapter 7. To deliver the plan there are significant financial implications. The Plan is not just about allocating and managing scarce on-street and off-street space, it is also about enabling the safe and efficient movement of traffic.

Relevant proposals are contained within:

RUTLIP form 3c- Parking and Enforcement Action Plan

RUTLIP form 3c1- Provision of Secure Motor-Cycle Parking Facilities and Motor-Cycle Signing

12.15 Taxis and Private Hire Vehicles

12.15.1 It is proposed to undertake a taxi rank study comprising an audit of existing ranks, consideration of new locations for ranks and making improvements to existing facilities. This work will also include STAN principles and is linked to the STAN Study proposed in RUTLIP form 5a1.

12.15.2 Relevant proposals are contained within:

RUTLIP form 3d- Taxi's and Private Hire Vehicles

12.16 Accessibility

12.16.1 The Council aims to provide improved and more efficient accessible transport services. Both residents and visitors to the Borough will benefit from a more accessible public realm. However it is most important to work towards improving the transport environment for those members of the community who have mobility impairments.

12.16.2 Every programme described in this chapter should work towards improved access for all. However there is a need to identify a funding requirement for accessibility specific schemes, which could include:

- Measures necessary to complement accessible transport services
- Signing for different modes
- Bus scheme in partnership with Royal Borough of Kingston.
- Drop kerbs for improved access to hospitals, shopping areas and points of interest

12.16.3 The fundamental objective in enhancing community transport is to support TfL's Equality and Inclusion commitment to "a city for people, an accessible city and a fair city."

12.16.4 For the year 2005/06 SWELTRAC obtained funding for the Richmond and Kingston Accessible Transport (RAKAT) Community Transport Scheme to assist with the capital cost of vehicle replacement. It is the intention to bid for more funds in future

years so that all vehicles are replaced based on 8-year intervals. The scheme will improve the capacity of voluntary sector organisations and groups in the two Boroughs of Richmond upon Thames and Kingston to meet demand for community transport.

- 12.16.5 The ability to do this is currently hampered by lack of capital funding for vehicle replacement and for communications systems that could improve co-ordination and efficiency. Kingston Voluntary Action (KVA), the umbrella group for voluntary bodies in the Borough, have the ambition to develop Enterprise schemes which build on the four successful Voluntary Care schemes operating in across the Boroughs. They also aim to pull together organisations and transport resources and so reduce duplication and waste. Capital is required to replace minibuses of over 8 years, add accessible people carriers to the fleet and buy software and hardware to control and co-ordinate bookings and vehicle use.

- 12.16.6 Relevant proposals are contained within:

RUTLIP form 4a- Local Area Accessibility

RUTLIP form 4a2- Local Area Accessibility- signage deficiencies

12.17 Walking

- 12.17.1 The Council is committed to improvements to the walking environment. This commitment is reflected in many areas of this Plan, such as with town centre improvements, the Safer Routes to Schools initiative, local area treatments and accessibility enhancements. A substantial overview of walking is provided in Chapter 2, paragraph 2.10.

- 12.17.2 Relevant proposals are contained within:

RUTLIP form 4b- Walking

12.18 Cycling

- 12.18.1 Cycling offers a cheap, healthy and efficient mode of transport that has almost no negative impact on the environment. The increased use of cycling helps to reduce the effects of traffic congestion thereby benefiting the economy and environment whilst also improving public health.

- 12.18.2 Cycling plays a key role in achieving modal shift and is probably the quickest and most reliable form of transport.

12.18.3 Cycling- Borough Cycle Network (non-LCN+)

- 12.18.3.1 The Council will seek funding for the enhancement of existing routes and the continuing to development of the boroughs local routes with measures that could include:

- Advanced stop lines
- Toucan crossings
- Mandatory and Advisory cycle lanes
- Improved signing

- 12.18.3.2 Relevant proposals are included within:

RUTLIP form 4c1- Cycling- Non LCN+

12.18.4 Cycling- Cycle Training, Cycle Parking and Cycle Strategy

- 12.18.4.1 Cyclists are particularly vulnerable in traffic. The Borough's cycle training programme is vital to improving the safety of cyclists and the minimising of points of conflict with all other modes.
- 12.18.4.2 With indications of increased numbers of residents and visitors cycling to, and within the Borough, continuation of the cross borough cycle parking programme is important. Sites highlighted for improved cycle parking include;
- Schools
 - Stations
 - Shopping Centres
 - Tourist attractions
 - Parks and leisure facilities
 - Cemeteries.
- 12.18.4.3 Where practicable and where a planning application is required, a new business may have a condition imposed requiring cycle parking be provided as a part of redevelopment or a change of use. The Borough is also interested in trying less traditional cycle parking facilities with higher levels of security.
- 12.18.4.4 The Cycle Strategy is also proposed for review as it needs to be updated with a clearer action plan and a Borough-wide audit of existing cycling facilities. It may also be able to incorporate a structure for improving monitoring of finished schemes and statistical information such as the total length of the Borough cycle network. From the information gathered the Borough will be in a much better position to detail a programme of work together with required funding for the future.
- 12.18.4.5 Relevant proposals are contained within:
- RUTLIP form 4c- Cycling- Cycle Training; Cycle Parking; and Cycling Strategy update

12.18.5 Cycling- LCN+

The purpose and role of LCN+ is outlined in Appendix G: Common Statements. The LCN+ is a critical region-wide programme to roll out improved bus provision in the Borough. For the next 3 years work is proposed on LCN+ Links 167, 168, 170, 173/176, 174 and 175. Work is likely to comprise advanced stop lines; toucan crossings; mandatory and advisory cycle lanes; and, improved signing. The work undertaken on the LCN+ is complemented by the work undertaken on the Borough Cycle Network (non LCN+).

- 12.18.5.1 Relevant proposals are contained within:
- RUTLIP form 4c2- Cycling- LCN+

12.19 Bus Stop Accessibility

- 12.19.1 To address barriers to mobility at all stages of a bus journey, including bus stop accessibility
- 12.19.2 The Council will continue its programme of bus stop accessibility improvements across the borough. The elements of this programme include:
- Reviewing all bus stops to improve passenger safety, security and comfort
 - Reviewing all bus movements on the approach and exit from bus stops
- 12.19.3 Recommendations from these reviews are likely to include:

- Provision and improvement of bus boarders
- Changes to bus cages
- Changes to parking restrictions
- Increased kerb heights
- Footway repaving or improvement
- Upgraded street lighting to improve personal security
- Removal of street clutter

12.19.4 Relevant proposals are contained within:

RUTLIP form 4d- Bus Stop Accessibility

12.20 Travel Awareness and Travel Plans

12.20.1 Business Travel Plans will be promoted as an all-encompassing initiative for a business, with the aim of reducing its transport impact on the local road network. Business Travel Plans will cover the following aspects of a businesses travel and transport needs: -

- Commuter journeys
- Business travel
- Visitors
- Deliveries
- Business fleet

12.20.2 It is planned to undertake monitoring of business travel plans through the use of a business travel plan database, which will come into operation this financial year.

12.20.3 In order to progress business travel plans within Richmond upon Thames a range of measures aimed at encouraging cycling, walking, public transport, car sharing, car clubs or reducing the need to travel for work will be promoted. These can include: -

- Setting up a car sharing initiative (using www.sharethecar.org, a SWELTRAC project).
- Providing cycle facilities. E.g. showers, secure cycle parking.
- Providing information to staff on rail, tube and bus services, in conjunction with the travel information services and leaflets provided by TfL
- Low interest or interest free public transport season ticket loans.
- Offering attractive flexible-working practices.
- Car park management
- Home working
- Tele-working
- Pool vehicles
- Using alternative fuels for fleet vehicles

12.20.4 Relevant proposals are contained within:

RUTLIP form 1d1- Work Travel Plans (Business Travel Plans)

RUTLIP form 5a- Travel Awareness

12.21 Environment

12.21.1 As part of the LIP the Council has carried out a Strategic Environmental Assessment (SEA). The Council will have to monitor all schemes delivered from the LIP to keep an eye on their environmental impacts. There will be funding required to sustain this requirement. The transport measures relating to each of the main environmental areas can be linked to air quality, noise, energy, waste and biodiversity or a combination.

- 12.21.2 The Council's Air Quality Action Plan (AQAP) includes measures to both reduce the pollution emitted from the vehicles on Borough roads and to reduce the amount of traffic on the roads. In particular the Council wishes to be able to monitor its air pollution hotspots both for emissions and traffic congestion. It anticipates that as the AQAP is finalised that other proposals may potentially be identified for funding. These will be indicated to TfL through the annual funding process.
- 12.21.3 The Council is interested in the possible establishment of a Low Emission Zone (LEZ) for London, and is working with the Greater London Assembly to ensure that any LEZ that is established is the most effective and feasible model taking into account London boroughs' capacity and resources. It has provided a submission through the draft LEZ submission that expresses the Council's overall support for the LEZ.
- 12.21.4 A provision is being considered for mitigating measures programme aimed at protecting the Borough's biodiversity.

- 12.21.5 Relevant proposals are contained within:
- RUTLIP form 5b- Environmental Measures

12.22 Water

- 12.22.1 The Council will continue to work with Thames Waterways, TfL to support sustainable use of all its waterways. A small funding requirement is identified for mitigating measures.
- 12.22.2 Relevant proposals are contained within:
- RUTLIP form 5c- Water

12.23 Future Proposals

- 12.23.1 The Borough has some initial thoughts on the schemes that could be implemented beyond 2009/10 and would form part of a future LIP. The following schemes are listed under the respective headings of Roads/Congestion; Walking; Cycling, Public Transport; Accessibility; and, Environment. They provide preliminary detail as to works that the Borough will consider over and above any ongoing programmes such as Travel Awareness, Road Maintenance, and Bus Stop Accessibility.

12.23.2 Roads / congestion

The following proposals would help to improve road infrastructure and ease congestion within the area, they include:

- To ensure that on-street parking in the area is reduced and to investigate the introduction of controlled parking zones where appropriate
- The use of effective barriers to HGV's on the Hammersmith Bridge
- Reconfigure the lights at Lonsdale Road and Castelnau to allow the left hand filter of traffic
- Improve congestion problems along Barnes High Street, through waiting and loading reviews
- Improve congestion problems on: Kew Rd; Mortlake Road from Kew to Sheen; Park and Kew Gardens Road; and Petersham Road (A307) to Richmond Bridge.
- Implement area traffic schemes that will improve road safety, relieve residential roads of through traffic, ease congestion and minimise the impact of parking.

- Improve congestion problems around the Teddington Town Centre and railway station. Measures could include changes to the traffic light phasing.

12.23.3 Walking

Future improvements to the pedestrian environment could include:

- On-going maintenance of key walking routes, specifically routes involved in safety and health programmes currently in place.
- The construction of a footbridge across the Thames between Barnes and Fulham and also at Sunnyside Bridge, Hampton
- Ensure that the pedestrian facilities provide appropriate access for residents and visitors to the Kew Riverside area.
- Kew Gardens Station to Kew Gardens – upgrade and improve the pedestrian environment along the route.
- Ensure that pedestrian facilities provide appropriate access for residents and visitors to the area.
- Investigate opportunities for improving conditions for pedestrians within Richmond Town Centre, to the RFU and the Stoop Memorial Ground
- Ensure that the pedestrian facilities provide appropriate access for residents and visitors to the area, particularly major attractions such as Bushy Park and Hampton Court Palace

12.23.4 Cycling

Improvements needed to the cycling environment include:

- Provide advisory cycle lanes on roads around the Barnes and Mortlake station interchanges.
- Improved signage indicating proximity to nearby sign-posted routes and cycle network in general.
- Ensure that the cycling facilities provide appropriate access for residents and visitors to the Kew Riverside area.
- Encourage cycling and the provision of cycle routes and parking in and around all Town Centres
- Additional cycle stands at all shopping centres, key attractions and railway stations

Proposed new cycle routes within the area that would assist in linking key strategic cycle routes include:

- Richmond Park Road
- Vicarage Road
- Thames towpath from Hammersmith Bridge to Chiswick Bridge
- Upper Richmond Road
- Key links around Barnes Common / Barnes Station, including: White Hart Lane, Station Road, Common Road and Westfields Avenue.
- Gerard Road
- Church Road
- Ham Street / Riverside Drive / Dukes Avenue
- Richmond Hill
- Thames towpath
- Key links around Richmond Station and Town Centre, including: the Green, The Quadrant, Sheen Road
- Kings Road
- Richmond Bridge
- Manor Grove
- Marksbury Avenue / Atwood Road
- Lower Mortlake / Lower Richmond Road

- Clifford Avenue.
- Staines Road
- Improvements around Whitton Station, i.e. Constance Road / Redway Drive
- Kneller Gardens
- Nelson Road
- Rugby Road
- Court Way
- Moor Mead Recreation ground
- Queens Road
- Cromwell Road Lane
- Church St Gate to Park Lane Gate (Bushy Park)
- Hampton Court Rd Gate to Church Gr Gate (Bushy Park)
- Park Road
- Princes Rd / Burtons Rd
- Kings Rd
- Dean Rd / Tudor Rd
- Broad Lane
- Hatherop Rd / Oldfield Rd
- Ormand Ave/Drive / Manor Gardens

12.23.5 **Public Transport**

Efforts will be made to improve the level of service and access to public transport within the area. The use of bus priority and traffic management measures will help to improve bus services and provide greater access at key interchanges.

The following are proposals and/or policies to work towards improvements to public transport in the area:

- Working with TfL to develop new services: to serve the inside of Richmond Park connecting to Richmond station and to the southern area of East Sheen; to connect Whitton with Teddington and Kingston; to serve the inside of Richmond Park connecting to Richmond station and to the southern area of East Sheen; between Richmond and Kingston, on a direct route via Twickenham; between Richmond Town Centre and the North Twickenham, Rugby Stadium and Whitton area; to serve residential areas away from existing bus routes, such as, Chertsey Road, Twickenham, Hospital Bridge Road and Whitton.
- Relocate the route 209 bus stand in Mortlake closer to Mortlake Station.
- Interconnection at Mortlake Station and need for more reliable train services.
- Improve access at bus stops.
- Encourage improvements in the levels of rail services on the Waterloo line.
- Encourage improvements in the levels of bus services, especially links at Richmond.
- Provision of more late night or all night services.
- Services to serve residential areas away from existing bus routes, such as North Kew.
- Provide appropriate bus stands at Pools on the Park Leisure Complex and Sainsbury's Manor Road Supermarket.
- Provide level access from St Margaret's station to Amyand Park Road
- Extension of 371 and 481 Bus services to Kingston Hospital

12.23.6 Accessibility

Access within the area particularly for public transport is generally poor, improvements to the transport environment so that access is provided to all users needs to be undertaken, such measures include:

- Pedestrian access across the A307 from Petersham Gate to Richmond Park.
- Improvements to Richmond Town Centre – include a package of measures to improve the town Centre, George Street, the Quadrant, Hill Street and Red Lion Street with increased pavement areas improved crossings, street environment and spaces for bus stops and loading.
- Twickenham Town Centre (Holly Road) – Introduce a package to improve accessibility along Holly Road. Include change in levels in the carriageway and pavement to introduce a shared surface for vehicles and pedestrians. Also to improve the carriageway surface, pedestrian and car-park signage. Environmental improvements to the street scene, street furniture, walking and lighting.
- Twickenham Town Centre (King Street) – Improvements to the pedestrian environment, to include build outs, improved surface material, signage, lighting and street furniture, removal of clutter and tree planting.
- The provision of wheelchair and mobility impaired access at all railway Stations.

12.23.7 Environment

- Press for a reduction in aircraft noise and oppose changes in aviation activity that would increase the problem.
- The ongoing monitoring of air quality and transport related noise within the Borough.