

THREE RIVERS SETTLEMENT APPRAISAL

UPDATE MARCH 2010

Contents

	Page
1) Context	1
2) Methodology	2
3) Settlement Appraisal	5
4) Settlement Hierarchy	20
5) Conclusion	22
Appendix 1: Scoring of Settlement Sustainability	24
Appendix 2: Three Rivers Settlements	26

1: Context

This study has been produced as background to the emerging Three Rivers Local Development Framework (LDF) to assist in the production of development plan documents. An original study was completed in March 2007, and has been updated at March 2010 to reflect changes since 2007.

The Regional Spatial Strategy for the East of England sets a requirement for Three Rivers District Council to provide 4,000 dwellings between 2001 and 2021. To meet the requirements of Planning Policy Statement 3, the Council is required to plan for 5,000 dwellings between 2001-2026.

To 2009, 1926 dwellings have been completed, and at 31/03/09, a further 565 had full or outline permission.

The Core Strategy will set out the spatial strategy and planning framework for Three Rivers, and will provide the broad framework for locating future growth and development. Specific sites will be identified through the Site Allocations Development Plan Document according to this spatial strategy.

National and regional guidance require development to be located in the most sustainable locations. PPS12: Local Spatial Planning requires a spatial approach to planning with an aim of contributing to the achievement of sustainable development.

PPS1: Delivering Sustainable Development identifies sustainable development as the core principle underpinning planning. Sustainable development should be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment; and a just society that promotes social inclusion, sustainable communities and personal well being whilst protecting and enhancing the physical environment and optimising resource and energy use. Plan policies should also address accessibility (through location and physical access) for all members of the community to jobs, health, housing, education, shops, leisure and community facilities.

PPS3: Housing reinforces the emphasis on sustainable development through requiring planning to deliver housing development in suitable locations which offer a good range of community facilities and with good access to jobs, key services and infrastructure.

The East of England Plan includes objectives to locate development so as to reduce the need to travel, to ensure new development fulfils principles of sustainable communities providing a well designed living environment adequately supported by social and green infrastructure, and to promote social cohesion by improving access to work, services and other facilities, especially for those who are disadvantaged.

As part of the process to identify sustainable locations for potential future development in Three Rivers, an appraisal has been carried out for the 38 settlements in the District. Settlement appraisal may provide a basis for future strategy through identifying the intended role, function and aims of different settlements¹. This background paper examines the extent to which settlements in Three Rivers presently display the characteristics of sustainable communities and will assess the suitability of settlements for the accommodation of plan led growth in

¹ DCLG (2006) *Preparing Core Strategies*, London: HMSO.

terms of existing levels of sustainability and the benefits planned growth could confer on settlement sustainability.

2: Methodology

There are 31 settlements located wholly within the boundaries of Three Rivers, and a further seven settlements located partially within Three Rivers and partially within one of the adjoining local authorities. The settlement of Grove Mill has not been included further in the appraisal as the area of settlement within Three Rivers is extremely limited. Watford is classed as one settlement, and extends in to Three Rivers in both the north and south. For the purposes of this appraisal, these areas have been assessed as 'Leavesden and Garston', 'Oxhey Hall' and 'Tolpits Lane and Croxley Business Park'. The settlements are mapped in Appendix 2.

The settlement boundaries have been determined by Hertfordshire County Council, and amended to reflect the distinction between Rickmansworth and Mill End, and the parts of Watford which fall within Three Rivers. The geographical centre of each settlement was then plotted.

The facilities within each settlement were then identified and recorded. Where there is no facility within a settlement, the nearest facility by road is recorded together with the distance by road from the settlement centre. The facilities assessed were primary school; secondary school; GP surgery; convenience store or supermarket; post office; library; pharmacy; open space; and community leisure facility, while access to services was assessed through provision of road infrastructure, bus services and railway services.

The population of each settlement, together with the percentage of Three Rivers population this represents where a settlement is wholly within the District, has been recorded to provide a context for assessment and interpretation of the sustainability of each settlement in terms of ability to meet the needs of existing residents. Environmental constraints to further development have also been recorded.

In order to determine levels of access to services, it is necessary to define the distance between homes and services, under which the service may be considered accessible. In order to determine reasonable access distance to community facilities, information from 'Sustainable Settlements'² and from PPG13: Transport³ has been used. These indicate distance thresholds for different travel modes. This information indicates that:

- Important facilities to which people can usually be expected to walk to should be a maximum of 400m away.
- Local facilities which are ideally accessible by foot should be a maximum of 800m away.
- Local facilities to which it is not reasonable to expect all people to walk to, but which could be walked to by those who choose should be a maximum of 1,600m away.
- Facilities which are less local but should be within cycling distance should preferably be within cycling distance should be within 5,000m, and no more than 8,000m away.

Based on these criteria, it has been decided to use the following standards as ideals

² Barton, H., Davis, G., Guise, R., (1995) *Sustainable Settlements: a guide for planners, designers and developers*, UWE, Bristol

³ DETR (2001) *Planning Policy Guidance 13: Transport*, HMSO, London.

Table 2.1: Distance Thresholds for Accessibility to Services (by road)

FACILITY	LOWER DISTANCE THRESHOLD	UPPER DISTANCE THRESHOLD
Primary School	400m	800m
Secondary School	1,600m	3,200m
GP	800m	1,600m
Convenience Store	800m	1,600m
Post Office	800m	1,600m
Library	800m	1,600m
Pharmacy	800m	1,600m
Open Space	400m	800m
Community Leisure Facility	1,600m	3,200m
Rail Station	800m	1,600m

Bus services have been recorded where they are present within the settlement, together with the route number, route extent, and service recurrence between the hours of 7-10am (one direction only). Rail services have also been recorded with service provider, route extent and recurrence.

This assessment of key facilities is based on the core assumption that greater availability of key facilities, services and infrastructure within a settlement increases the sustainability of a settlement.

Data collection was primarily through desk based research, and data sources are shown in table 2.2.

Table 2.2: Data sources for assessment of facilities

PRIMARY SCHOOL	www.hertsdirect.org.uk www.harrow.gov.uk www.hillingdon.gov.uk
SECONDARY SCHOOL	www.hertsdirect.org.uk www.harrow.gov.uk www.hillingdon.gov.uk
GP SURGERY	www.nhs.uk
CONVENIENCE STORE	www.upmystreet.com
POST OFFICE	www.postoffice.co.uk
LIBRARY	www.hertsdirect.org.uk www.harrow.gov.uk www.hillingdon.gov.uk
PHARMACY	www.nhs.uk
PUBLICLY ACCESSIBLE OPEN SPACE	TRDC Leisure Department
COMMUNITY LEISURE FACILITY	TRDC Leisure Department
BUS SERVICE	www.intalink.org.uk
RAIL STATION	www.nationalrail.co.uk

The tables in section 3 have been presented according to the distance to facilities from the settlement centre according to the classification set out in table 2.3.

Table 2.3: Recording of settlement accessibility according to the distance to facilities

Facility within settlement	
Facility within lower distance threshold	
Facility within upper distance threshold	
Facility outside upper distance threshold	

3: Settlement Appraisal

3.1: Abbots Langley

POPULATION		10,472 (12.64%)		
FACILITIES	PRIMARY SCHOOL	Abbots Langley JMI, Tanners Wood JMI, Divine Saviour RC School		
	SECONDARY SCHOOL	Francis Combe, St Michael's, Parmiter's School (2400m)		
	GP SURGERY	Abbots Langley High Street		
	CONVENIENCE STORE	Abbots Langley High Street, College Road		
	POST OFFICE	Abbots Langley High Street		
	LIBRARY	Abbots Langley Library, 2 mobile library stops		
	PHARMACY	Abbots Langley High Street		
	PUBLICLY ACCESSIBLE OPEN SPACE	13 areas		
	COMMUNITY LEISURE FACILITY	Woodside Leisure Centre (2500m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	Well connected by C roads		
	BUS SERVICE	8 6 318 501	Abbots Langley – Northwood Maple Cross – Hemel Hempstead Abbots Langley – Watford Aylesbury - Watford	30 mins 30 mins 30 mins 30 mins
	RAIL STATION	Kings Langley (1200m) London Midland	Northampton - London	30 mins
	CONSTRAINTS	Green Belt surrounding settlement, public open space within settlement. West Coast Mainline railway and Grand Union Canal to west of settlement, M25 to north of settlement.		

3.2: Batchworth

POPULATION		208 (0.25%)		
FACILITIES	PRIMARY SCHOOL	St Mary's CofE (1800m)		
	SECONDARY SCHOOL	Joan of Arc (1700m)		
	GP SURGERY	Uxbridge Road (2000m)		
	CONVENIENCE STORE	Harefield Road (1100m)		
	POST OFFICE	Rickmansworth Town Centre, Main Avenue (1600m)		
	LIBRARY	Rickmansworth Library (1600m)		
	PHARMACY	Main Avenue (1600m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1000m		
	COMMUNITY LEISURE FACILITY	Batchworth Golf Course		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4145 Local road connections		
	BUS SERVICE			
	RAIL STATION	Rickmansworth (1600m) Chiltern Railways Underground	Northampton – London Amersham - London	120 mins 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Floodzones and wildlife site to north of settlement.		

3.3: Batchworth Heath

POPULATION		76 (0.09%)	
FACILITIES	PRIMARY SCHOOL	Holy Trinity CofE (1100m)	
	SECONDARY SCHOOL	Joan of Arc (2700m)	
	GP SURGERY	Eastbury Road (2700m)	
	CONVENIENCE STORE	Green Lane (2400m)	
	POST OFFICE	Green Lane (2400m)	
	LIBRARY	Northwood Library (2400m)	
	PHARMACY	Main Avenue (2400m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area	
	COMMUNITY LEISURE FACILITY	Mount Vernon (700m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A404 Local road connections	
	BUS SERVICE		
	RAIL STATION	Northwood (2300m) Underground	Watford – London 15 mins
CONSTRAINTS		Settlement within Green Belt. Conservation Area.	

3.4: Batchworth Park

POPULATION		117 (0.14%)	
FACILITIES	PRIMARY SCHOOL	St Mary's CofE (1800m)	
	SECONDARY SCHOOL	Joan of Arc (1800m)	
	GP SURGERY	Uxbridge Road (2400m)	
	CONVENIENCE STORE	Harefield Road (1300m)	
	POST OFFICE	Rickmansworth Town Centre (1600m)	
	LIBRARY	Rickmansworth Library (1600m)	
	PHARMACY	Rickmansworth Town Centre (1600m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	800m	
	COMMUNITY LEISURE FACILITY	Batchworth Golf Club (1000m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A404 Local road connections	
	BUS SERVICE		
	RAIL STATION	Rickmansworth (1900m) Chiltern Railways Underground	Aylesbury – London Amersham – London 120 mins 15 mins
CONSTRAINTS		Settlement within Green Belt.	

3.5: Bedmond

POPULATION		977 (1.18%)		
FACILITIES	PRIMARY SCHOOL	Bedmond Village Primary		
	SECONDARY SCHOOL	Kings Langley High School (4000m)		
	GP SURGERY	Abbots Langley High Street (2100m)		
	CONVENIENCE STORE	Bedmond High Street		
	POST OFFICE	Bedmond High Street		
	LIBRARY	1 mobile library stop		
	PHARMACY	Abbots Langley High Street (1900m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	2 areas		
COMMUNITY LEISURE FACILITY	Bedmond Playing Fields			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	C road and local roads only		
	BUS SERVICE	6	Maple Cross – Hemel Hempstead	30 mins
	RAIL STATION	Kings Langley (3400m) London Midland	Northampton - London	30 mins
CONSTRAINTS		Settlement within Green Belt. Public open space and wildlife sites to west of settlement.		

3.6: Belsize

POPULATION		176 (0.21%)		
FACILITIES	PRIMARY SCHOOL	St Paul's CofE (1100m)		
	SECONDARY SCHOOL	Kings Langley High School (4000m)		
	GP SURGERY	Church Lane (2200m)		
	CONVENIENCE STORE	The Green (2000m)		
	POST OFFICE	The Green (2000m)		
	LIBRARY	1 mobile library stop		
	PHARMACY	Kings Langley High Street (4400m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1200m		
	COMMUNITY LEISURE FACILITY	Chipperfield Common (1200m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	Well connected by C roads		
	BUS SERVICE	352	Watford – Hemel Hempstead	120 mins
	RAIL STATION	Kings Langley (5500m) London Midland	Northampton - London	30 mins
CONSTRAINTS		Settlement within Green Belt and on boundary with Dacorum Borough Council.		

3.7: Bucks Hill

POPULATION		146 (0.18%)		
FACILITIES	PRIMARY SCHOOL	Sarratt CofE (1900m)		
	SECONDARY SCHOOL	Kings Langley High School (4500m)		
	GP SURGERY	Church Lane (2200m)		
	CONVENIENCE STORE	The Green (2000m)		
	POST OFFICE	The Green (2000m)		
	LIBRARY	1 mobile library stop		
	PHARMACY	Kings Langley High Street (4900m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1600m		
COMMUNITY LEISURE FACILITY	Chipperfield Common (1600m)			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road only		
	BUS SERVICE			
	RAIL STATION	Kings Langley (5500m) London Midland	Northampton - London	30 mins
CONSTRAINTS		Settlement within Green Belt.		

3.8: Carpenders Park

POPULATION		4,875 (5.88%)		
FACILITIES	PRIMARY SCHOOL	St Meryl the Mead		
	SECONDARY SCHOOL	Bushey Hall School (2200m)		
	GP SURGERY	Attenborough Surgery		
	CONVENIENCE STORE	Delta Gain		
	POST OFFICE	Delta Gain		
	LIBRARY	South Oxhey Library (700m)		
	PHARMACY	Delta Gain		
	PUBLICLY ACCESSIBLE OPEN SPACE	3 areas		
COMMUNITY LEISURE FACILITY	Romilly Drive Playing Pitches			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4008, B4542 Local road connections		
	BUS SERVICE	W50	Watford – South Oxhey	60 mins
	RAIL STATION	Carpenders Park (500m) London Overground	Watford to Euston	30 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Flood zone running through settlement. Railway line to west and wildlife site to north of settlement.		

3.9: Chandlers Cross

POPULATION		123 (0.15%)		
FACILITIES	PRIMARY SCHOOL	St Paul's CofE (3400m)		
	SECONDARY SCHOOL	Rickmansworth School (3600m)		
	GP SURGERY	Church Lane (3600m)		
	CONVENIENCE STORE	Baldwins Lane (3300m)		
	POST OFFICE	Baldwins Lane (3300m)		
	LIBRARY	1 mobile library stop		
	PHARMACY	Baldwins Lane (3300m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	800m		
	COMMUNITY LEISURE FACILITY	Chipperfield Common (3900m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road		
	BUS SERVICE			
	RAIL STATION	Croxley (4500m) Underground	Watford – London	15 mins
CONSTRAINTS		Settlement within Green Belt, wildlife sites surrounding settlement. M25 to northwest of settlement.		

3.10: Chipperfield

POPULATION		1,528		
FACILITIES	PRIMARY SCHOOL	St Paul's CofE (800m)		
	SECONDARY SCHOOL	Kings Langley High School (4000m)		
	GP SURGERY	Church Lane (2800m)		
	CONVENIENCE STORE	The Green (2500m)		
	POST OFFICE	The Green (2500m)		
	LIBRARY	1 mobile library stop (500m)		
	PHARMACY	Kings Langley High Street (4500m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area		
	COMMUNITY LEISURE FACILITY	Chipperfield Common		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road Local road connections		
	BUS SERVICE	352 R8	Watford – Hemel Hempstead Chipperfield – Watford	120 mins 120 mins
	RAIL STATION	Kings Langley (6000m) London Midland	Northampton – London	30 mins
CONSTRAINTS		Settlement within Green Belt. Majority of settlement within Dacorum Borough Council.		

3.11: Chorleywood

POPULATION		6,814 (8.22%)		
FACILITIES	PRIMARY SCHOOL	Chorleywood JMI, The Russell, Christ Church CofE		
	SECONDARY SCHOOL	Clement Danes		
	GP SURGERY	Lower Road (2 surgeries)		
	CONVENIENCE STORE	Lower Road (2 locations)		
	POST OFFICE	Lower Road		
	LIBRARY	Chorleywood Library		
	PHARMACY	Lower Road, Main Parade		
	PUBLICLY ACCESSIBLE OPEN SPACE	6 areas		
	COMMUNITY LEISURE FACILITY	The Swillett Playing Fields		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	M25, A404 Well connected by C roads		
	BUS SERVICE	336 R4	High Wycombe – Watford Chorleywood - Watford	60 mins 120 mins
	RAIL STATION	Chorleywood Chiltern Railways Underground	Aylesbury – London Amersham - London	30 mins 15 mins
CONSTRAINTS		Green Belt surrounding settlement, conservation areas and public open space within settlement. Chilterns AONB to north and M25 to east of settlement.		

3.12: Church End

POPULATION		27 (0.03%)		
FACILITIES	PRIMARY SCHOOL	Sarratt CofE (1200m)		
	SECONDARY SCHOOL	Clement Danes (1800m)		
	GP SURGERY	Church Lane (1000m)		
	CONVENIENCE STORE	The Green (1200m)		
	POST OFFICE	The Green (1200m)		
	LIBRARY	1 mobile library stop (1100m)		
	PHARMACY	Main Parade (3300m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1200m		
	COMMUNITY LEISURE FACILITY	Chipperfield Common (3400m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road		
	BUS SERVICE			
	RAIL STATION	Chorleywood (3000m) Chiltern Railways Underground	Aylesbury – London Amersham - London	30 mins 15 mins
CONSTRAINTS		Settlement in Green Belt and Chilterns AONB. Conservation area, archaeological site and wildlife site.		

3.13: Commonwood

POPULATION		76 (0.09%)	
FACILITIES	PRIMARY SCHOOL	Sarratt CofE (1300m)	
	SECONDARY SCHOOL	Clement Danes (4200m)	
	GP SURGERY	Church Lane (1600m)	
	CONVENIENCE STORE	The Green (1400m)	
	POST OFFICE	The Green (1400m)	
	LIBRARY	1 mobile library stop	
	PHARMACY	Kings Langley High Street (5300m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	1400m	
	COMMUNITY LEISURE FACILITY	Chipperfield Common (1400m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road only Local road connections	
	BUS SERVICE		
	RAIL STATION	Chorleywood (5500m) Chiltern Railways Underground	Aylesbury – London Amersham – London 30 mins 15 mins
CONSTRAINTS		Settlement within Green Belt. Wildlife sites to north and south of settlement.	

3.14: Croxley Green

POPULATION		11519 (13.90%)	
FACILITIES	PRIMARY SCHOOL	Malvern Way JMI, Yorke Mead, Harvey Road JMI, Little Green JMI	
	SECONDARY SCHOOL	Rickmansworth School	
	GP SURGERY	Baldwins Lane, New Road	
	CONVENIENCE STORE	Baldwins Lane (2 locations), New Road, Watford Road, The Green	
	POST OFFICE	Baldwins Lane, Watford Road	
	LIBRARY	Croxley Green Library	
	PHARMACY	New Road, Baldwins Lane	
	PUBLICLY ACCESSIBLE OPEN SPACE	2 areas	
	COMMUNITY LEISURE FACILITY	Baldwins Lane Skate Park, Barton Way Playing Fields, Baldwins Lane Playing Fields	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A412 Well connected by C roads	
	BUS SERVICE	352 724 5 6 336	Watford – Hemel Hempstead Heathrow – Harlow Garston – Rickmansworth Maple Cross – Hemel Hempstead High Wycombe - Watford 120mins 60 mins 30 mins 30 mins 60 mins
	RAIL STATION	Croxley Underground	Watford - London 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, on boundary with Watford Borough Council, flood zone east of settlement. Conservation area, wildlife sites and public open space within settlement.	

3.15: Eastbury

POPULATION		3,230 (3.90%)		
FACILITIES	PRIMARY SCHOOL	Eastbury Farm JMI		
	SECONDARY SCHOOL	Northwood School (2000m)		
	GP SURGERY	Eastbury Road (800m)		
	CONVENIENCE STORE	Hallowes Crescent, Green Lane (1300m)		
	POST OFFICE	Hallowes Crescent, Green Lane (1300m)		
	LIBRARY	Northwood Library (1300m)		
	PHARMACY	Green Lane (1500m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	Oxhey Woods		
	COMMUNITY LEISURE FACILITY	Eastbury Playing Fields		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	C roads and local road connections		
	BUS SERVICE	8	Abbots Langley – Mount Vernon	30 mins
	RAIL STATION	Northwood (1200m) Underground	Watford - London	15 mins
CONSTRAINTS		Settlement constrained by Green Belt to north and west. Boundary with London Borough of Hillingdon to south, and railway line to east of settlement. HMS Warrior site within settlement.		

3.16: Hampermill Wood

POPULATION		92 (0.11%)		
FACILITIES	PRIMARY SCHOOL	Eastbury Farm JMI (1400m)		
	SECONDARY SCHOOL	Westfield Community Technology College (4600m)		
	GP SURGERY	Oxhey Drive (2600m)		
	CONVENIENCE STORE	Hallowes Crescent (900m)		
	POST OFFICE	Hallowes Crescent (900m)		
	LIBRARY	South Oxhey Library (2400m)		
	PHARMACY	Hallowes Crescent (900m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	200m		
	COMMUNITY LEISURE FACILITY	South Oxhey Playing Fields (200m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4125 Local road connections		
	BUS SERVICE			
	RAIL STATION	Moor Park (1400m) Underground	Amersham - London	15 mins
CONSTRAINTS		Settlement within Green Belt. Public open space and wildlife site to the south, floodzone to north of settlement.		

3.17: Harthall Lane

POPULATION		142 (0.17%)		
FACILITIES	PRIMARY SCHOOL	Kings Langley Primary (2200m)		
	SECONDARY SCHOOL	Kings Langley High School (2600m)		
	GP SURGERY	The Nap (1500m)		
	CONVENIENCE STORE	Kings Langley High Street (1600m)		
	POST OFFICE	Kings Langley High Street (1600m)		
	LIBRARY	Kings Langley Library (1600m)		
	PHARMACY	Kings Langley High Street (1600m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	600m		
	COMMUNITY LEISURE FACILITY	Love Lane (2700m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road		
	BUS SERVICE			
	RAIL STATION	Kings Langley (1800m) London Midland	Northampton - London	30 mins
CONSTRAINTS		Settlement within Green Belt. West Coast Mainline railway at west of settlement.		

3.18: Heronsgate

POPULATION		204 (0.25%)		
FACILITIES	PRIMARY SCHOOL	Chorleywood JMI (1000m)		
	SECONDARY SCHOOL	Clement Danes (3600m)		
	GP SURGERY	Lower Road (2000m)		
	CONVENIENCE STORE	Lower Road (2000m)		
	POST OFFICE	Lower Road (2000m)		
	LIBRARY	Chorleywood Library (2000m)		
	PHARMACY	Lower Road (2000m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	900m		
	COMMUNITY LEISURE FACILITIES	The Swillett Playing Fields (900m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road Local road connections		
	BUS SERVICE	R4	Chorleywood - Watford	60 mins
	RAIL STATION	Chorleywood (2000m) Chiltern Railways Underground	Aylesbury – London Amersham - London	30 mins 15 mins
CONSTRAINTS		Settlement within Green Belt. Conservation Area. M25 to southeast of settlement.		

3.19: Hyde Lane

POPULATION		39 (0.05%)	
FACILITIES	PRIMARY SCHOOL	Bedmond Village Primary (2500m)	
	SECONDARY SCHOOL	Kings Langley High School (3800m)	
	GP SURGERY	The Nap (2800m)	
	CONVENIENCE STORE	Kings Langley High Street (2800m)	
	POST OFFICE	Kings Langley High Street (2800m)	
	LIBRARY	Kings Langley Library (2700m)	
	PHARMACY	Kings Langley High Street (2800m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area	
	COMMUNITY LEISURE FACILITY	Love Lane (3300m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road	
	BUS SERVICE		
	RAIL STATION	Kings Langley (2900m) London Midland	Northampton - London 30 mins
CONSTRAINTS		Settlement within Green Belt. Wildlife sites to northeast.	

3.20: Kings Langley

POPULATION		4,942	
FACILITIES	PRIMARY SCHOOL	Kings Langley Primary (1200m)	
	SECONDARY SCHOOL	Kings Langley High School (1500m)	
	GP SURGERY	The Nap (600m)	
	CONVENIENCE STORE	Kings Langley High Street (600m)	
	POST OFFICE	Kings Langley High Street (600m)	
	LIBRARY	1 mobile library stop, Kings Langley Library (600m)	
	PHARMACY	Kings Langley High Street (600m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area	
	COMMUNITY LEISURE FACILITY	Love Lane (1700m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4251 Well connected by C roads	
	BUS SERVICE	500/ 501 550	Aylesbury - Watford Watford – Hemel Hempstead 30 mins 30 mins
	RAIL STATION	Kings Langley London Midland	Northampton – London 30 mins
CONSTRAINTS		Settlement on boundary with Dacorum Borough Council. Green Belt surrounding settlement and covering north of settlement. Public open space and archaeological sites within settlement. West Coast Mainline railway to east of settlement and M25 to south.	

3.21: Leavesden and Garston

POPULATION		91,067		
FACILITIES	PRIMARY SCHOOL	St Catharine of Siena		
	SECONDARY SCHOOL	Francis Combe, St Michael's, Parmiter's		
	GP SURGERY	Katherine Place		
	CONVENIENCE STORE	Katherine Place		
	POST OFFICE	Haines Way (1600m)		
	LIBRARY	1 mobile library stop (1400m)		
	PHARMACY	Katherine Place		
	PUBLICLY ACCESSIBLE OPEN SPACE	2 areas		
COMMUNITY LEISURE FACILITY	Woodside Leisure Centre, Woodside Playing Fields, Francis Combe, St Michaels, Parmiters			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	M1, A41, A412 Well connected by C roads		
	BUS SERVICE	6 8 10 320 724 R8	Maple Cross – Hemel Hempstead Woodside – Mount Vernon Woodside – Holywell Hemel Hempstead – Watford Heathrow – Harlow Chipperfield – Watford	30 mins 30 mins 30 mins 60 mins 60 mins 120 mins
	RAIL STATION	Garston (1800m) London Midland	St Albans – Watford	55 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Public open space at northwest of settlement and floodzone to east.		

3.22: Loudwater

POPULATION		1,242 (1.50%)		
FACILITIES	PRIMARY SCHOOL	Christ Church CofE (1600m)		
	SECONDARY SCHOOL	Clement Danes (2700m)		
	GP SURGERY	Uxbridge Road (2300m)		
	CONVENIENCE STORE	Rickmansworth Town Centre (2400m)		
	POST OFFICE	Rickmansworth Town Centre (2400m)		
	LIBRARY	Rickmansworth Library (2400m)		
	PHARMACY	Rickmansworth Town Centre (2400m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area		
	COMMUNITY LEISURE FACILITY	Scotsbridge Playing Fields (2700m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	C roads and local roads only		
	BUS SERVICE			
	RAIL STATION	Rickmansworth (2100m) Chiltern Railways Underground	Aylesbury – London Amersham – London	120 mins 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, Chilterns AONB to north. Conservation areas in settlement. Wildlife sites to north and west. River Chess and flood zone run through settlement		

3.23: Maple Cross

POPULATION		2,198 (2.65%)		
FACILITIES	PRIMARY SCHOOL	Maple Cross JMI		
	SECONDARY SCHOOL	Joan of Arc (3600m)		
	GP SURGERY	Uxbridge Road (2700m)		
	CONVENIENCE STORE	Chalfont Road		
	POST OFFICE	Chalfont Road		
	LIBRARY	1 mobile library stop		
	PHARMACY	Uxbridge Road (2600m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	2 areas		
COMMUNITY LEISURE FACILITY	Maple Cross Playing Fields			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A412 Limited C roads		
	BUS SERVICE	724 6 R21	Heathrow – Harlow Maple Cross – Hemel Hempstead Uxbridge – Mount Vernon	60 mins 30 mins 120 mins
	RAIL STATION	Rickmansworth (3500m) Chiltern Railways Underground	Aylesbury – London Amersham - London	120 mins 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Public open space to east and west of settlement, wildlife site to north.		

3.24: Mill End

POPULATION		5,136 (6.20%)		
FACILITIES	PRIMARY SCHOOL	Shepherds JMI, St Peter's CofE, St John's RC		
	SECONDARY SCHOOL	Joan of Arc (2500m)		
	GP SURGERY	Uxbridge Road (2 Surgeries) (1200m)		
	CONVENIENCE STORE	Tudor Parade, Church Lane		
	POST OFFICE	Tudor Parade		
	LIBRARY	1 mobile		
	PHARMACY	Tudor Parade		
	PUBLICLY ACCESSIBLE OPEN SPACE	4 areas		
COMMUNITY LEISURE FACILITY	William Penn, King George V Playing Fields			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A412, well connected by C roads		
	BUS SERVICE	5 6 724 R21 R4 W5	Garston – Rickmansworth Maple Cross – Hemel Hempstead Heathrow – Harlow Uxbridge – Mount Vernon Chorleywood – Watford Rickmansworth – Luton Airport	30 mins 30 mins 60 mins 120 mins 60 mins 60 mins
	RAIL STATION	Rickmansworth (1900m) Chiltern Railways Underground	Aylesbury – London Amersham - London	120 mins 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, M25 to north, flood zones to south, public open space, and wildlife sites within settlement.		

3.25: Moor Park

POPULATION		1,925 (2.32%)	
FACILITIES	PRIMARY SCHOOL	Eastbury Farm JMI, Holy Trinity CofE (1400m)	
	SECONDARY SCHOOL	Joan of Arc School (3600m)	
	GP SURGERY	Eastbury Road (1600m)	
	CONVENIENCE STORE	Green Lane (1800m)	
	POST OFFICE	Main Avenue	
	LIBRARY	Northwood Library (1700m)	
	PHARMACY	Main Avenue	
	PUBLICLY ACCESSIBLE OPEN SPACE	Batchworth Heath (1300m)	
	COMMUNITY LEISURE FACILITY	Eastbury Playing Fields (1800m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road and local road connections only	
	BUS SERVICE	8	Woodside – Mount Vernon 30 mins
	RAIL STATION	Moor Park Underground	Amersham - London 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, neighbouring settlement of Eastbury and Boundary with London Borough of Hillingdon. Conservation area, flood zone along north and east, railway line to east and archaeological sites to east and north.	

3.26: Oxhey Hall

POPULATION		91,067	
FACILITIES	PRIMARY SCHOOL	Bromet Primary (1300m)	
	SECONDARY SCHOOL	Bushey Hall (2700m)	
	GP SURGERY	Oxhey Drive (1900m)	
	CONVENIENCE STORE	Eastbury Road	
	POST OFFICE	Eastbury Road	
	LIBRARY	South Oxhey Library (1600m)	
	PHARMACY	St Andrews Parade (1600m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	2 areas	
	COMMUNITY LEISURE FACILITIES	The Centre, South Oxhey (1800m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4125 Local road connections	
	BUS SERVICE	1 8 W20	Garston – South Oxhey Woodside – Mount Vernon Oxhey Hall circular 20 mins 30 mins 60 mins
	RAIL STATION	Carpenders Park (1400m) London Overground	Watford – London 20 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Floodzone to east, and running through part of settlement. Wildlife sites and public open space to south.	

3.27: Pimlico

POPULATION		130		
FACILITIES	PRIMARY SCHOOL	Bedmond Village Primary (2000m)		
	SECONDARY SCHOOL	Longdean School (2600m)		
	GP SURGERY	Bennetts End (3500m)		
	CONVENIENCE STORE	Bedmond High Street (1600m)		
	POST OFFICE	Bedmond High Street (1600m)		
	LIBRARY	Leverstock Green Library (1800m)		
	PHARMACY	Bennetts End (3500m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1100m		
COMMUNITY LEISURE FACILITY	Coronation Playing Fields (3600m)			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road		
	BUS SERVICE	6	Maple Cross – Hemel Hempstead	30 mins
	RAIL STATION	Apsley (2500m) London Midland	Northampton – London	30 mins
CONSTRAINTS		Settlement within Green Belt. On Boundary with St. Albans District Council to east of settlement.		

3.28: Rickmansworth

POPULATION		9,435 (11.38%)		
FACILITIES	PRIMARY SCHOOL	Arnett Hills JMI, Rickmansworth Park JMI, St Mary's CofE		
	SECONDARY SCHOOL	Joan of Arc		
	GP SURGERY	Uxbridge Road (2 surgeries)		
	CONVENIENCE STORE	Rickmansworth Town Centre, Harefield Road, Moneyhill Parade, Uxbridge Road		
	POST OFFICE	Rickmansworth Town Centre, Moneyhill Parade		
	LIBRARY	Rickmansworth Library,		
	PHARMACY	Rickmansworth Town Centre, Moneyhill Parade, Uxbridge Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	5 areas		
COMMUNITY LEISURE FACILITY	The Aquadrome			
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A412, A404, Well connected by C roads		
	BUS SERVICE	5 6 336 724 R4 R21	Abbots Langley – Rickmansworth Maple Cross – Hemel Hempstead Amersham – Watford Heathrow – Harlow Chorleywood – Watford Uxbridge – Mount Vernon	30 mins 30 mins 60 mins 60 mins 60 mins 120 mins
	RAIL STATION	Rickmansworth Chiltern Railways Underground	Aylesbury – London Amersham - London	120 mins 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, flood zones to east and south, conservation areas, wildlife sites and public open space within settlement.		

3.29: Sandy Lodge

POPULATION		160 (0.19%)		
FACILITIES	PRIMARY SCHOOL	Eastbury Farm JMI (2500m)		
	SECONDARY SCHOOL	Joan of Arc (3800m)		
	GP SURGERY	Eastbury Road (2800m)		
	CONVENIENCE STORE	Green Lane (2900m)		
	POST OFFICE	Main Avenue (900m)		
	LIBRARY	Northwood Library (2800m)		
	PHARMACY	Main Avenue (900m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	800m		
	COMMUNITY LEISURE FACILITY	South Oxhey Playing Fields (800m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	Local road connections only		
	BUS SERVICE			
	RAIL STATION	Moor Park (900m) Underground	Amersham - London	15 mins
CONSTRAINTS		Settlement within Green Belt. Floodzone to north and east of settlement.		

3.30: Sarratt

POPULATION		924 (1.12%)		
FACILITIES	PRIMARY SCHOOL	Sarratt CofE		
	SECONDARY SCHOOL	Clement Danes (3000m)		
	GP SURGERY	Church Lane		
	CONVENIENCE STORE	The Green		
	POST OFFICE	The Green		
	LIBRARY	1 mobile library stop		
	PHARMACY	Main Parade (4200m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area		
	COMMUNITY LEISURE FACILITY	Chipperfield Common (3000m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	C road connections		
	BUS SERVICE	352	Watford – Hemel Hempstead	120 mins
	RAIL STATION	Chorleywood (4000m) Chiltern Railways Underground	Aylesbury – London Amersham – London	30 mins 15 mins
CONSTRAINTS		Settlement within Green Belt, and Chilterns AONB to west of settlement. Conservation area, archaeological site and wildlife sites within settlement.		

3.31: South Oxhey

POPULATION		11,984 (14.47%)		
FACILITIES	PRIMARY SCHOOL	St Josephs RC, Warren Dell JMI, Oxhey Wood JMI, Greenfield JMI, Woodhall JMI		
	SECONDARY SCHOOL	Westfield Community College, Bushey Hall School (2800m)		
	GP SURGERY	Oxhey Drive, Prestwick Road		
	CONVENIENCE STORE	Prestwick Road, Little Oxhey Lane, St Andrews Road, Hallowes Crescent		
	POST OFFICE	Hallowes Crescent, Prestwick Road, Little Oxhey Lane		
	LIBRARY	South Oxhey Library		
	PHARMACY	Hallowes Crescent, St Andrews Road, Bridlington Road, Little Oxhey Lane		
	PUBLICLY ACCESSIBLE OPEN SPACE	5 areas		
	COMMUNITY LEISURE FACILITY	The Centre, Sir James Altham		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4125, B4542 Connections from C roads		
	BUS SERVICE	1 8 W20 W50	Garston – South Oxhey Woodside – Mount Vernon Oxhey Hall circular Watford – South Oxhey	20 mins 30 mins 60 mins 60 mins
	RAIL STATION	Carpenders Park London Overground	Watford – London	30 mins
CONSTRAINTS		Green Belt surrounding settlement, local nature reserve, public open space and wildlife sites to west of settlement, railway line to east.		

3.32: Temple Gardens

POPULATION		30 (0.04%)		
FACILITIES	PRIMARY SCHOOL	Holy Trinity CofE (1800m)		
	SECONDARY SCHOOL	Joan of Arc (3400m)		
	GP SURGERY	Eastbury Road (2700m)		
	CONVENIENCE STORE	Harefield Road (2900m)		
	POST OFFICE	Main Avenue (1100m)		
	LIBRARY	Northwood Library (2400m)		
	PHARMACY	Main Avenue (1100m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	400m		
	COMMUNITY LEISURE FACILITY	Batchworth Golf Club (1400m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	Local road connections only		
	BUS SERVICE			
	RAIL STATION	Moor Park (1200m) Underground	Amersham - London	15 mins
CONSTRAINTS		Settlement within Green Belt. Wildlife site and conservation area. Archaeological site to north of settlement.		

3.33: Templepan Farm

POPULATION		29 (0.04%)	
FACILITIES	PRIMARY SCHOOL	Sarratt CofE (2800m)	
	SECONDARY SCHOOL	Rickmansworth School (4600m)	
	GP SURGERY	Church Lane (2900m)	
	CONVENIENCE STORE	The Green (2900m)	
	POST OFFICE	The Green (2900m)	
	LIBRARY	1 mobile library stop (1200m)	
	PHARMACY	Baldwins Lane (3800m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	1600m	
COMMUNITY LEISURE FACILITY	Chipperfield Common (2700m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	C road connections	
	BUS SERVICE		
	RAIL STATION	Croxley (5400m) Underground	Watford - London 15 mins
CONSTRAINTS		Settlement within Green Belt. Wildlife site to north of settlement. M25 to east.	

3.34: Tolpits Lane/ Croxley Business Park

POPULATION		91,067	
FACILITIES	PRIMARY SCHOOL	Holywell Primary (1200m)	
	SECONDARY SCHOOL	Westfield Community Technology College (1200m)	
	GP SURGERY	Tolpits Lane (1600m)	
	CONVENIENCE STORE	Baldwins Lane (1200m)	
	POST OFFICE	Baldwins Lane (1200m)	
	LIBRARY	South Oxhey (1600m)	
	PHARMACY	Tolpits Lane (1500m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	1 area	
	COMMUNITY LEISURE FACILITY	Westfield Community Centre (1200m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A4145 and local road connections	
	BUS SERVICE	10 W30	Woodside – Holywell Watford – Business Parks 20 mins 15 mins
	RAIL STATION	Croxley (1200m) Underground	Watford - London 15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, flood zone to south, wildlife site, Local Nature Reserve and public open space	

3.35: Toms Lane

POPULATION		805 (0.97%)		
FACILITIES	PRIMARY SCHOOL	Bedmond Village Primary (1200m)		
	SECONDARY SCHOOL	Kings Langley High School (2400m)		
	GP SURGERY	The Nap (1500m)		
	CONVENIENCE STORE	Bedmond High Street (1400m)		
	POST OFFICE	Bedmond High Street (1400m)		
	LIBRARY	Kings Langley Library (1500m)		
	PHARMACY	Kings Langley High Street (1700m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1000m		
	COMMUNITY LEISURE FACILITY	Love Lane (2200m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	C road		
	BUS SERVICE			
	RAIL STATION	Kings Langley (1800m) London Midland	Northampton – London	30 mins
CONSTRAINTS		Settlement within Green Belt. West Coast Mainline railway at west of settlement, M25 to south.		

3.36: West Hyde

POPULATION		119 (0.14%)		
FACILITIES	PRIMARY SCHOOL	Maple Cross JMI (1100m)		
	SECONDARY SCHOOL	Harefield Academy (3100m)		
	GP SURGERY	Rickmansworth Road (2700m)		
	CONVENIENCE STORE	Chalfont Road (1500m)		
	POST OFFICE	Chalfont Road (1500m)		
	LIBRARY	1 mobile library stop (1000m)		
	PHARMACY	Breakspear Road North (2400m)		
	PUBLICLY ACCESSIBLE OPEN SPACE	1300m		
	COMMUNITY LEISURE FACILITY	Maple Cross Playing Fields (1300m)		
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	A412 Limited C roads		
	BUS SERVICE	724	Heathrow – Harlow	60 mins
	RAIL STATION	Rickmansworth (4800m) Chiltern Railways Underground	Aylesbury – London Amersham – London	120 mins 15 mins
CONSTRAINTS		Settlement within Green Belt. Flood zone and wildlife site at east of settlement.		

3.37: Woodcock Hill

POPULATION		42 (0.05%)	
FACILITIES	PRIMARY SCHOOL	St Mary's CofE (1200m)	
	SECONDARY SCHOOL	Harefield Academy (2600m)	
	GP SURGERY	Rickmansworth Road (1900m)	
	CONVENIENCE STORE	Harefield Road (1500m)	
	POST OFFICE	Rickmansworth Town Centre (2400m)	
	LIBRARY	Rickmansworth Library (2400m)	
	PHARMACY	Rickmansworth Town Centre (2400m)	
	PUBLICLY ACCESSIBLE OPEN SPACE	700m	
	COMMUNITY LEISURE FACILITY	Batchworth Golf Club (2000m)	
ACCESS TO SERVICES	ROAD INFRASTRUCTURE	1 C road Local road connections	
	BUS SERVICE		
	RAIL STATION	Rickmansworth (2700m) Chiltern Railways Underground	Aylesbury – London Amersham – London
CONSTRAINTS		Settlement within Green Belt. Wildlife site to southeast of settlement.	

4: Settlement Hierarchy

Further analysis of settlement sustainability may be carried out through a comparison of each settlement relative to all settlements within Three Rivers. A settlement hierarchy may then be generated based on sustainability, determined by access to key services and facilities.

In order to assess sustainability, scores have been allocated for each key service/facility (primary school, secondary school, GP surgery, convenience store, post office, library, publicly accessible open space, community leisure facility), based on the distance to service from the settlement centre, according to the accessibility thresholds set out in table 2.1. The allocation of scores is based on the underlying assumption that closer proximity to a facility increases accessibility and therefore sustainability.

Table 4.1: Scoring of Facilities in relation to settlement

FACILITY LOCATION	SCORE ⁴
Within settlement	3
Within lower threshold distance	2
Within upper threshold distance	1
Outside upper threshold distance	0

These scores may then be averaged to provide an overall score for all facilities within a settlement.

⁴ Scores for 'library' will be halved where settlement provision is limited to a mobile library stop reflecting the reduced accessibility in comparison to a fixed library as a result of limited routes/ times.

Bus services and rail stations have been considered separately to allow recognition of the levels of service provision. Scores for infrastructure have been allocated according to the criteria in table 4.2.

Table 4.2: Scoring of infrastructure provision

	INFRASTRUCTURE PROVISION	SCORE
BUS SERVICES	Peak time interval 0-30 minutes	1 per service
	Peak time interval 30-60 minutes	0.5 per service
	Peak time interval 60+ minutes	0.25 per service
	No service	0
RAIL STATION	Within settlement	3
	Within Lower threshold distance	2
	Within upper threshold distance	1
	Outside upper threshold distance	0

Since the data considered in determining sustainability provide only an indication, production of a 'sustainability score' would be misleading, and settlements have instead been placed into broad categories. Settlements may be described as having very good, good, fair, or poor sustainability, according to their performance in relation of service and infrastructure provision. To avoid the introduction of subjectivity to the process, all factors have been considered equally, and there has been no weighting.

To place settlements in sustainability category, the averaged score for all facilities in a settlement is added to the score for bus service provision to give a settlement total score⁵, which may then be used to place settlements into a hierarchy.

Table 4.3: Categories of accessibility

SETTLEMENT TOTAL SCORE	SUSTAINABILITY CATEGORY
6+	Very Good
3-6	Good
1-3	Fair
0-1	Poor

⁵ Matrix of scores is shown in Appendix 1

Table 4.4: Settlement Hierarchy

SETTLEMENT	POPULATION	SUSTAINABILITY CATEGORY
Rickmansworth	9,435	VERY GOOD
Croxley Green	11,519	
South Oxhey	11,984	
Abbots Langley	10,472	
Chorleywood	6,814	
Mill End	5,136	
Leavesden and Garston	91,067	
Kings Langley	4,942	GOOD
Carpenders Park	4,875	
Eastbury	3,230	
Oxhey Hall	91,067	
Moor Park	1,925	
Maple Cross	2198	
Tolpits Lane and Croxley Business Park	91,067	
Bedmond	977	FAIR
Sarratt	924	
Batchworth	208	
Temple Gardens	30	
Hampermill Wood	92	
Sandy Lodge	160	
Chipperfield	1528	
Pimlico	130	
West Hyde	119	
Batchworth Park	117	
Harthall Lane	142	POOR
Heronsgate	204	
Toms Lane	805	
Commonwood	76	
Batchworth Heath	76	
Belsize	176	
Loudwater	1242	
Church End	27	
Woodcock Hill	42	
Bucks Hill	146	
Chandlers Cross	123	
Hyde Lane	39	
Templepan Farm	29	

5: CONCLUSION

As facilities and service provision change over time, this study and the resulting settlement hierarchy provides a broad indication of the current situation in terms of settlement sustainability. The settlement hierarchy puts Rickmansworth, Croxley Green, South Oxhey, Abbots Langley, Chorleywood, Mill End, Leavesden and Garston as the most sustainable settlements in Three Rivers according to the level of access to key services and facilities and the provision of public transport services. These are the largest settlements in terms of population, and it follows that these

settlements would be expected to be capable of supporting the greatest range of services, since services require a supporting catchment population to ensure viability.

Population is not the only determining factor in settlement sustainability however. Moor Park and Bedmond, are all placed higher in the settlement hierarchy than may have been expected based on population figures alone, whilst Toms Lane and Loudwater are positioned lower than may be expected. Moor Park (population 1925) scores well on account of the provision of a train station, whilst Bedmond (population 977) scores are relatively high as the settlement contains a primary school, convenience store and post office, and there is also a good bus route running through the settlement. Conversely, Loudwater has a population of 1242, but the only facility provided within the settlement is publicly accessible open space and there are no public transport links to the settlement. Toms Lane (population 805) also suffers in terms of sustainability on account of lack of bus services.

Settlements have been placed into categories of sustainability, and settlement boundaries have been fixed for this purpose, however the boundaries given may not relate to everyday life, particularly where settlements coalesce. This may affect how sustainable settlements are in practice as people utilise services in a variety of settlements.

The access to key services and bus services are averaged over whole settlements, which may mask smaller scale areas within settlements with issues in accessing facilities, for example, particularly areas on the periphery of larger settlements where dwellings may be distanced from facilities generally located in settlement centres. These factors mean that there may be variations in sustainability within settlements; however these variations are beyond the scope of this study.

The different facilities have not been weighted in the assessment of settlement sustainability in order to avoid subjectivity that this would introduce as relative importance of facilities will depend on individual circumstances. If a weighting system were to be applied, it is likely the relationships between settlements would alter, and the categories of sustainability could also change.

Despite the limitations, the category of sustainability to which a settlement has been placed provides an indication of the potential for growth. Where settlement sustainability has been described as 'poor', there is limited potential for growth, though minor development through small sites and infill may be appropriate. Settlements with sustainability described as 'fair' or 'good' sustainability may accommodate additional development, which may benefit the settlement through reinforcing and maintaining the existing settlement role, and maintaining or enhancing the viability of services. Settlements of 'very good' sustainability have the greatest potential for growth and significant development in order to contribute to improvement of existing sustainability.

APPENDIX 1: SCORING OF SETTLEMENT SUSTAINABILITY

SETTLEMENT	POPULATION	FACILITIES											RAIL STATION	BUS SERVICE	SETTLEMENT TOTAL SCORE	SUSTAINABILITY CATEGORY
		PRIMARY SCHOOL	SECONDARY SCHOOL	GP SURGERY	CONVENIENCE STORE	POST OFFICE	LIBRARY	PHARMACY	PUBLICLY ACCESSIBLE OPEN SPACE	COMMUNITY LEISURE FACILITY	FACILITY TOTAL	FACILITY AVERAGE				
Abbots Langley	10472	3	1	3	3	3	3	3	3	1	23	2.6	1	4	7.6	VERY GOOD
Batchworth	208	0	1	0	1	1	1	1	0	3	8	0.9	1	0	1.9	FAIR
Batchworth Heath	76	0	1	0	0	0	0	0	3	2	6	0.7	0	0	0.7	POOR
Batchworth Park	117	0	1	0	1	1	1	1	1	2	8	0.9	0	0	0.9	POOR
Bedmond	977	3	0	0	3	3	1.5	0	3	3	16.5	1.8	0	1	2.8	FAIR
Belsize	176	0	0	0	0	0	1.5	0	0	2	3.5	0.4	0	0.25	0.65	POOR
Bucks Hill	146	0	0	0	0	0	1.5	0	0	2	3.5	0.4	0	0	0.4	POOR
Carpenders Park	4875	3	1	3	3	3	2	3	3	3	24	2.7	2	0.5	5.2	GOOD
Chandlers Cross	123	0	0	0	0	0	1.5	0	1	0	2.5	0.3	0	0	0.3	POOR
<i>Chipperfield</i>	<i>1528</i>	1	0	0	0	0	1	0	3	3	8	0.9	0	0.5	1.4	FAIR
Chorleywood	6814	3	3	3	3	3	3	3	3	3	27	3	3	0.75	6.75	VERY GOOD
Church End	27	0	1	1	1	1	0.5	0	0	0	4.5	0.5	0	0	0.5	POOR
Commonwood	76	0	0	1	1	1	1.5	0	0	2	6.5	0.7	0	0	0.7	POOR
Croxley Green	11519	3	3	3	3	3	3	3	3	3	27	3	3	3.25	9.25	VERY GOOD
Eastbury	3230	3	1	2	1	1	1	1	3	3	16	1.8	1	1	3.8	GOOD
Hampermill Wood	92	0	0	0	1	1	0	1	2	2	7	0.8	1	0	1.8	FAIR
Harthall Lane	142	0	1	1	1	1	1	1	1	1	8	0.9	0	0	0.9	POOR
Heronsgate	204	0	0	0	0	0	0	0	0	2	2	0.2	0	0.5	0.7	POOR

	POPULATION	PRIMARY SCHOOL	SECONDARY SCHOOL	GP SURGERY	CONVENIENCE STORE	POST OFFICE	LIBRARY	PHARMACY	PUBLICLY ACCESSIBLE OPEN SPACE	COMMUNITY LEISURE FACILITY	FACILITY TOTAL	FACILITY AVERAGE	RAIL STATION	BUS SERVICE	TOTAL	SUSTAINABILITY CATEGORY
Hyde Lane	39	0	0	0	0	0	0	0	3	0	3	0.3	0	0	0.3	POOR
<i>Kings Langley</i>	4942	0	2	2	2	2	2	2	3	1	16	1.8	3	1	5.8	GOOD
<i>Leavesden And Garston</i>	91067	3	3	3	3	1	0.5	3	3	3	22.5	2.5	0	4.25	6.75	VERY GOOD
Loudwater	1242	0	1	0	0	0	0	0	3	1	5	0.6	0	0	0.6	POOR
Maple Cross	2198	3	0	0	3	3	1.5	0	3	3	16.5	1.8	0	1.75	3.55	GOOD
Mill End	5136	3	1	1	3	3	1.5	3	3	3	21.5	2.4	0	3.75	6.15	VERY GOOD
Moor Park	1925	0	0	1	0	3	0	3	0	1	8	0.9	3	1	4.9	GOOD
<i>Oxhey Hall</i>	91067	0	1	0	3	3	1	1	3	1	13	1.4	1	2.5	4.9	GOOD
<i>Pimlico</i>	130	0	1	0	1	1	0	0	0	0	3	0.3	0	1	1.3	FAIR
Rickmansworth	9435	3	3	3	3	3	3	3	3	3	27	3	3	3.75	9.75	VERY GOOD
Sandy Lodge	160	0	0	0	0	1	0	1	1	2	5	0.6	1	0	1.6	FAIR
Sarratt	924	3	1	3	3	3	1.5	0	3	1	18.5	2.1	0	0.25	2.35	FAIR
South Oxhey	11984	3	1	3	3	3	3	3	3	3	25	2.8	3	3	8.8	VERY GOOD
Temple Gardens	30	0	0	0	0	1	0	1	2	2	6	0.7	1	0	1.7	FAIR
Templepan Farm	29	0	0	0	0	0	0.5	0	0	1	1.5	0.2	0	0	0.2	POOR
<i>Tolpits Lane and Croxley BP</i>	91067	0	2	1	1	1	1	1	3	2	12	1.3	1	2	4.3	
Toms Lane	805	0	1	1	1	1	1	0	0	1	6	0.7	0	0	0.7	POOR
West Hyde	119	0	1	0	1	1	0.5	0	0	2	5.5	0.6	0	0.5	1.1	FAIR
Woodcock Hill	42	0	1	0	1	0	0	0	1	1	4	0.4	0	0	0.4	POOR

APPENDIX 2: SETTLEMENT MAP

