

THREE RIVERS SETTLEMENT APPRAISAL

December 2025



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1: Policy & Context

This study has been produced as evidence to support the preparation of the emerging Three Rivers Local Plan. This study will consider facilities/services, provision of sustainable transport methods and population sizes across the district's settlements. It will also assist in the formulation of the settlement hierarchy, defining and categorising the settlements for policy application.

The standard method stipulates that Three Rivers District Council need to provide 832 new homes per annum between 2026 and 2041, a figure that has risen dramatically since the current plan requirement of 180 dwellings per annum.

The Local Plan will set out the spatial strategy and planning framework for Three Rivers and will provide the broad framework for locating future growth and development before identifying specific sites for development.

National Planning Policy Framework (NPPF)

The 'golden thread' running through the NPPF is one of sustainable development and this document provides a key element to guide the process of plan-making.

Paragraph 8 of the NPPF sets out the economic, social and environmental objectives of sustainable development and in paragraph 9 highlights that they should be delivered *'through the preparation and implementation of plans and the application of the policies in this Framework'*.

The presumption in favour of sustainable development (Paragraph 11) applies in plan-making, just as it does with decision-taking. National policy requires that:

'all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects'

Further to this, b) states that strategic policies should provide for objectively assessed need unless application of policy protecting areas or assets of particular importance provides a strong reason for restricting development, or adverse impacts of doing so would significantly and demonstrably outweigh the benefits, assessed against the policies in the framework as a whole.

Paragraph 16 sets out that plans should be prepared with the objective of contributing to the achievement of sustainable development.

Spatially, Paragraph 23 states that broad locations should be indicated on key diagrams and land use on a policies map and that the policies in relation to this should have a clear strategy for bringing land forward at a sufficient rate to address the objectively assessed need over the plan period.

For Rural Housing, Paragraph 82 suggests that policies should be responsive to local circumstances, including community-led housing and opportunities to bring forward rural exception sites, while considering whether allowing some market homes would

help facilitate this. Paragraph 83 states that housing should be located where it shall enhance or maintain community facilities and identify opportunities for villages to grow and thrive, particularly when supporting local services. Further to this, it is suggested that in groups of smaller settlements, development in one village may support services in a village nearby.

In relation to the role of town centres, Paragraph 90 states that policies should support their role at the heart of local communities and; *‘define a network and hierarchy of town centres and promote their long-term vitality and viability – by allowing them to grow and diversify in a way that can respond to rapid changes in the retail and leisure industries, allows a suitable mix of uses (including housing) and reflects their distinctive characters;’* It also recognises residential development plays an important role in ensuring the vitality of town centres.

In relation to ‘Promoting healthy and safe communities’, Paragraph 98 *ensure an integrated approach to considering the location of housing, economic uses and community facilities and services.’*

On the matter of sustainable transport, Paragraph 110 states that *‘Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes’*

Planning Practice Guidance (PPG)

There is very little guidance in the Planning Practice Guidance relating to settlement hierarchy, however, paragraph 67-009-020190722 identifies the importance of understanding the settlement hierarchy, and in particular that a wide range of settlements can play a role in delivering sustainable development in rural areas.

Three Rivers Settlement Appraisal

As part of the process to identify sustainable locations for potential future development in Three Rivers, an appraisal has been carried out for settlements in the district of over 100 people, which totals 24 settlements. Settlement appraisal and hierarchical definitions may provide a basis for future strategy through identifying the intended role, function and aims of different settlements and is supported by Paragraph 32 of the NPPF, which states that the preparation and review of all policies should be underpinned by relevant and up to date evidence.

This evidence 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 terms of existing levels of sustainability and any benefits of planned growth on the sustainability of settlements. This, coupled with an assessment of settlement population and transport infrastructure, will result in the formulation of a hierarchy of settlements.

2: Methodology

Settlements

Settlements located wholly within the boundaries of Three Rivers, and settlements located partially within Three Rivers and partially within one of the adjoining local authorities have been assessed. 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 effectively extends into 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 settlement boundaries used were from our adopted plan policies map. Where new facilities have been built since the previous plan on the edge of the settlement outside the old boundaries (such as the new schools in Mill End and Croxley Green) they have been brought into the settlement. Further to this, the boundary between Chorleywood and Rickmansworth has been altered to reflect the historic parish boundary of Chorleywood's eastern extent, rather than the arbitrary line of the M25, which came later than most of the housing development. The geographical centre of each settlement was then plotted.

A variety of sources have been used to estimate populations of settlements. Three Rivers has a diverse constitutional make up of parishes and wards, with no town councils and large unparished areas. The boundaries of these parishes rarely align with a specific settlement, and very often the wards do not either. This means that traditional sources of population data, such as Census information, are not an accurate reflection and ward or parish information has to be supplemented by smaller super output areas available from the 2021 census (that also don't follow boundaries) and hand drawn estimations tools. Subsequently, most populations are estimated and are denoted as such.

Facilities and Services

The facilities within each settlement were identified and recorded. Where there is no facility within a settlement, the nearest facility by road, footpath, or cycle route is recorded together with the distance 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 via bus service frequency and number of services (not distance to them as there are often so many) and distance to the railway station.

Leisure facilities include leisure centres, golf courses (both public and private) playing fields and open spaces with sports pitches and/or MUGA's.

Community centres/village halls include a range of public use buildings that can be used for booking and hire by the community for a range of activities and events.

Determining Accessible Distances

In order to determine levels of access to services, it is necessary to measure the distance between homes and services, under which the service may be considered accessible. We have defined reasonable access distance to community facilities by using set distances with lower and upper thresholds for walking, consistent with the method used to assess the sustainability of sites for our Strategic Housing and Employment Land Availability Assessments (SHELAA's) and with our previous version of the Settlement Appraisal for consistency.

Newer guidance has been reviewed, for example, the 'Active Travel England Standing Advice Note: Active Travel and Sustainable Development' from June 2024 and Sustrans 'Walkable Neighbourhoods' Report, published in May 2022, but these does not conflict with, or substantially deviate from, previous guidance and policy, so will remain the same for this study.

Our guidance sets out that important facilities/services 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 1600m away. Facilities which are less local should be within the cycling distance of 5000m, a distance that is generally considered appropriate for most people to cycle to facilities and services. There is only one threshold for cycling that will apply across the services to avoid unnecessary complexity.

In determining distances, a central point has been calculated within each settlement to represent an 'average' location for the population of a given settlement. Walking and cycling routes have been measured along a network created using OS data for roads and pathways, as opposed to an 'as the crow flies' assessment. Suitable routes for walking include roadways which benefit from a pavement and 'made' footpaths. Suitable routes for cyclists were established and a separate network made for cycle route assessment, which excluded routes deemed unsafe, typically relating to national speed limit A and B class country roads, particularly with the view that some routes could be accessed by children for cycling to school.

The table below sets out the lower distance and upper distance thresholds for the different types of facilities as mentioned above.

Table 1: Threshold Distances for Walking and Cycling

FACILITY	LOWER DISTANCE THRESHOLD	UPPER DISTANCE THRESHOLD
<i>Walking</i>		
Primary School	400m	800m
Secondary School	1600m	3200m
GP	800m	1600m
Convenience Store	800m	1600m

Post Office	800m	1600m
Library	800m	1600m
Pharmacy	800m	1600m
Open Space	400m	800m
Community Leisure Facility	1600m	3200m
Rail Station	800m	1600m
Community Centre/Village Hall	800m	1600m
<i>Cycling</i>	THRESHOLD DISTANCE	
All Facilities	5000m	

Bus services have been recorded where they are present within the settlement, together with the route number, route extent, and service recurrence, at their most frequent. Rail services have also been recorded with service provider, route extent and recurrence.

The 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.

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.

Table 2: Recording of settlement accessibility according to the distance to facilities

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

3: Settlement Appraisal

Abbots Langley

POPULATION		c. 9200		
	PRIMARY SCHOOL	Within settlement: Tanners Wood JMI School, Divine Saviour RC JMI, Abbots Langley JMI, Breakspeare School		
	SECONDARY SCHOOL	Walking 2279m: Future Academies Watford		
	GP SURGERY	Within settlement: Vine House Health Centre		
	CONVENIENCE STORE	Within settlement: Bridge Road; School Mead; College Road; High Street		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including Leavesden Country Park; Manor House Grounds		
	SPORTS/LEISURE FACILITY	Five recorded locations within settlement		
	LIBRARY	Within settlement: Abbots Langley Library		
	COMMUNITY CENTRE/HALL	Within settlement: multiple locations including Abbots Langley Community Centre; Tanners Wood Hall		
	BUS SERVICE	R9	Garston/Chipperfield	Daily
		H19	Hemel Hempstead/Kings Langley	Daily
		329	Maple Cross/Hemel Hempstead	1 Hour
		20	Watford/Hemel Hempstead	30 mins
	RAIL STATION	Walking route outside threshold distance. Walking 1686m: Kings Langley	Milton Keynes/London Euston West Coast	30 mins
CONSTRAINTS		Green Belt surrounding settlement. Public Open Space within settlement, West Coast Mainline Railway and Grand Union Canal to the west of settlement, M25 to the north.		

Batchworth

POPULATION		c. 250		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1743m: St Mary's Church of England Primary School		
	SECONDARY SCHOOL	Walking 1781m: Joan of Arc		
	GP SURGERY	Walking route outside threshold distance. 2156m: The Colne Practice		
	CONVENIENCE STORE	Walking 1100m: Harefield Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	Walking 546m: Moor Park Golf Club		
	SPORTS/LEISURE FACILITY	Walking 546m: Moor Park Golf Club		
	LIBRARY	Walking 1560m: Rickmansworth Library		
	COMMUNITY CENTRE/HALL	Walking 532m: Rickmansworth Conservative Club		
	BUS SERVICE	No bus services identified		
	RAIL STATION	Walking route outside threshold distance. Cycling 2013m: Rickmansworth	Chiltern Railways/Underground	15 mins
CONSTRAINTS		Settlement within Green Belt. Flood zone to north and east of settlement		

Bedmond

POPULATION		c. 900		
	PRIMARY SCHOOL	Within settlement: Bedmond Academy		
	SECONDARY SCHOOL	Walking route outside threshold distance. Walking 3544m: Woodfield School		
	GP SURGERY	Walking route outside threshold distance. Walking 2220m: Vine House Health Centre		
	CONVENIENCE STORE	Within settlement: High Street		
	PUBLICLY ACCESSIBLE OPEN SPACE	Walking 457m: Bedmond Play Area		
	SPORTS/LEISURE FACILITY	Within settlement: Bedmond Academy*		
	LIBRARY	Walking route outside threshold distance. Cycling 1741m: Abbots Langley Library		
	COMMUNITY CENTRE/HALL	Within settlement: Bedmond Village Hall		
	BUS SERVICE	H19	Hemel/Kings Langley	Daily
		20	Watford/Hemel	30 mins
		320	Maple Cross/Hemel	Daily

	RAIL STATION	Walking route outside threshold distance. Cycling 3531m: Kings Langley Station	Milton Keynes / London Euston (West Coast Main Line)	30 mins
CONSTRAINTS		Settlement within Green Belt. Public open space and wildlife sites to west of settlement		

*Sports facilities available for hire

Belsize

POPULATION		c. 200		
	PRIMARY SCHOOL	No walking route. Cycling 1346m: St Paul's CofE Primary School		
	SECONDARY SCHOOL	No walking route. Cycling 4410m: Kings Langley School		
	GP SURGERY	No walking route. Cycling 2344m: Dr. Corp And Partners		
	CONVENIENCE STORE	No walking route. Cycling 1623m: Chapel Croft		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: green at centre of Belsize; Penman's Green		
	SPORTS/LEISURE FACILITY	Walking 1143 m: Chipperfield Corinthians FC		
	LIBRARY	No walking route. Cycling 4691: Bovington Library		
	COMMUNITY CENTRE/HALL	No walking route. 1369m: Chipperfield Village Hall		
	BUS SERVICE	352	Watford/Hemel	2 hours
	RAIL STATION	No walking route. Cycling 6164m: Kings Langley Station	Milton Keynes / London Euston (West Coast Main Line)	30 mins
CONSTRAINTS		Settlement within Green Belt and on boundary with Dacorum Borough Council		

Bucks Hill

POPULATION		c.150		
	PRIMARY SCHOOL	No walking route. Cycling 1346m: St Paul's CofE Primary School		
	SECONDARY SCHOOL	No walking route. Cycling 4983m: Kings Langley School		
	GP SURGERY	No walking route. Cycling 2789m: Dr. Corp and Partners		
	CONVENIENCE STORE	No walking route. Cycling 2319m: The Green		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: open access land with public bridleway (80 Sarratt) off Bucks Hill		
	SPORTS/LEISURE FACILITY	No walking route. Cycling 2011m: Chipperfield Clarendon Cricket Club		
	LIBRARY	No walking route. Cycling 5381m: Kings Langley Library		
	COMMUNITY CENTRE/HALL	No walking route. Cycling 1986m: Chipperfield Village Hall		
	BUS SERVICE	No bus services identified		
	RAIL STATION	No walking route. Cycling 5932m: Kings Langley Station	Milton Keynes / London Euston (West Coast Main Line)	30 mins
CONSTRAINTS		Settlement within Green Belt		

Carpenders Park

POPULATION		C.5000		
	PRIMARY SCHOOL	Within settlement: St Meryl		
	SECONDARY SCHOOL	Walking 1287m: Colnbrook School		
	GP SURGERY	Within settlement: Attenborough Surgery		
	CONVENIENCE STORE	Within settlement: Delta Grain		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Greenfield Park Play Area; Carpenders Park Cemetery; Oulton Way Play Area		
	SPORTS/LEISURE FACILITY	One recorded location within settlement		
	LIBRARY	Walking 900m: Oxhey Library		
	COMMUNITY CENTRE/HALL	Within settlement: Carpenders Park Community Hall		
	BUS SERVICE	346	Northwood / Watford	1 hour
		R16	Bushey / Watford	Daily

		R17	Hatch End / South Oxhey	Daily
	RAIL STATION	Carpenders Park	Euston/Watford Junction (Lioness Line, London Overground)	15 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Flood zone running through settlement. Railway line to west and wildlife site to north of settlement.		

Chorleywood

POPULATION		C.10,800 (suggested new boundary)		
	PRIMARY SCHOOL	Within settlement: Arnett Hill JMI, Christ Church C of E, The Russell (County) School, Chorleywood JMI, Charlotte House Preparatory School		
	SECONDARY SCHOOL	Within settlement: St Clement Danes School		
	GP SURGERY	Within settlement: Chorleywood Medical Centre, Whitton House Surgery		
	CONVENIENCE STORE	Within settlement: Main Parade; New Parade; Lower Road; Station Approach; Heronsgate Road; Rickmansworth Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including Chorleywood Common; Chorleywood House Estate; Chorleywood Lawn Tennis Club		
	SPORTS/LEISURE FACILITY	Five recorded locations within settlement		
	LIBRARY	Within settlement: Chorleywood Library		
	COMMUNITY CENTRE/HALL	Within settlement: Bullsland Hall, Chorleywood Memorial Hall		
	BUS SERVICE	336	Chorleywood / Bushey	1-2 hours
		R2	Chorleywood / Northwood	Daily
	RAIL STATION	Chorleywood Station	Aylesbury Vale Parkway / London Marylebone (Chiltern Railways London – Aylesbury Line)	30 mins
Amersham and Chesham / Aldgate (Metropolitan Line, London Underground)			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.		

Chandlers Cross

POPULATION		c.130		
	PRIMARY SCHOOL	No walking route. Cycling 3187m: Little Green Junior School		
	SECONDARY SCHOOL	No walking route. Cycling 3209m: Croxley Danes School		
	GP SURGERY	No walking route. Cycling 3278m: Baldwins Lane Surgery		
	CONVENIENCE STORE	No walking route. Cycling 3237m: Baldwins Lane (west)		
	PUBLICLY ACCESSIBLE OPEN SPACE	No walking route. Cycling 978m: The Grove Park Golf Course		
	SPORTS/LEISURE FACILITY	No walking route. Cycling 978m: The Grove Park Golf Course		
	LIBRARY	No walking route. Cycling 4129m: Croxley Green Library		
	COMMUNITY CENTRE/HALL	No walking route. Cycling 3706m: Sarratt Village Hall		
	BUS SERVICE	No bus services identified		
	RAIL STATION	No walking route. Cycling 4357m: Watford Station	Aldgate (Metropolitan Line, London Underground)	15 mins
CONSTRAINTS		Settlement within Green Belt, wildlife sites surrounding settlement. M25 to northwest of settlement		

Croxley Green

POPULATION		c.12800		
	PRIMARY SCHOOL	Within settlement: Harvey Road JMI, Yorke Mead School, Malvern Way JMI, Little Green JMI		
	SECONDARY SCHOOL	Within settlement: Rickmansworth School and Croxley Danes School		
	GP SURGERY	Within settlement: New Road Surgery, Baldwins Lane Surgery		
	CONVENIENCE STORE	Within settlement: Watford Road; The Green (including New Parade); Scotts Hill; New Road; Baldwins Lane (west); Watford Road (Winton Approach); Baldwins Lane (east)		

	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including Baldwins Lane Recreation Ground; Croxley Green; Barton Way Play Area		
	SPORTS/LEISURE FACILITY	Eight recorded locations within settlement		
	LIBRARY	Within settlement: Croxley Green Library		
	COMMUNITY CENTRE/HALL	Within settlement: All Saints Church Hall; Croxley Youth Club; British Legion; St Oswalds Church Hall		
	BUS SERVICE	322	Rickmansworth / Hemel	30 mins
		336	Bushey / Chorleywood	1-2 hours
		352	Hemel /Watford	2 hours
		724	Heathrow / Harlow	1 hour
		725	Heathrow / Stevenage	1 hour
		951	Thorpe Park / Borehamwood	Daily
		R2	Watford / Chorleywood	Daily
		W1	Maple Cross	Hourly
	RAIL STATION	Croxley	Watford / Aldgate (Metropolitan Line, London Underground)	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.		

Eastbury

POPULATION		c.3500		
	PRIMARY SCHOOL	Within settlement: Eastbury Farm JMI		
	SECONDARY SCHOOL	Walking 1528m: St Helen's School		
	GP SURGERY	Walking 1243m: Eastbury Surgery		
	CONVENIENCE STORE	Walking 1383m: Green Lane		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Eastbury Park/Recreation Ground		
	SPORTS/LEISURE FACILITY	Walking 1454m: Frithwood Primary School		
	LIBRARY	Walking 1450m: Northwood Library		
	COMMUNITY CENTRE/HALL	Walking 1462m: Saint John's United Reformed Church		
	BUS SERVICE	328	Watford / Mount Vernon Hospital	1 hour
		346	Abbots Langley / Bushey	1 hour
	RAIL STATION	Walking 1383m: Northwood Underground Station	Watford, Amersham, Chesham / Aldgate (Metropolitan Line, London Underground)	10 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.
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Harthall Lane

POPULATION		c.160		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1620m: Abbot's Hill		
	SECONDARY SCHOOL	Walking 1626m: Abbot's Hill		
	GP SURGERY	Walking 1249m: Kings Langley Surgery		
	CONVENIENCE STORE	Walking 941m: Station Hill (Kings Langley)		
	PUBLICLY ACCESSIBLE OPEN SPACE	Walking 488m: Lakeside Avenue Play Area		
	SPORTS/LEISURE FACILITY	Walking 550m: Primrose Hill Playing Fields		
	LIBRARY	Walking 1162m: Kings Langley Library		
	COMMUNITY CENTRE/HALL	Walking 1153m: Kings Langley Community Centre		
	BUS SERVICE	No bus services identified		
	RAIL STATION	Walking route outside threshold distance. Cycling 1819m: Kings Langley Station	Milton Keynes / London Euston (West Coast Main Line)	30 mins
CONSTRAINTS		Settlement within Green Belt. West Coast Mainline railway at west of settlement		

Heronsgate

POPULATION		c.220		
	PRIMARY SCHOOL	No walking route. Cycling 1111: Chorleywood Primary School		
	SECONDARY SCHOOL	No walking route. Cycling 3976m: St Clement Danes School		
	GP SURGERY	No walking route. Cycling 1953m: Whitton House Surgery		
	CONVENIENCE STORE	No walking route. Cycling 1015m: Heronsgate Road		

	PUBLICLY ACCESSIBLE OPEN SPACE	No walking route. Cycling 1063m: The Swillet Recreation Ground		
	SPORTS/LEISURE FACILITY	No walking route. Cycling 1063m: The Swillet Recreation Ground		
	LIBRARY	No walking route. Cycling 1913m: Chorleywood Community Library		
	COMMUNITY CENTRE/HALL	No walking route. Cycling 1054m: Bullsland Hall		
	BUS SERVICE	R2	Maple Cross/Heronsgate/Mount Vernon Hospital/Watford	2/day
	RAIL STATION	No walking route. Cycling 2482m: Chorleywood Station	Aylesbury Vale Parkway / London Marylebone (Chiltern Railways London – Aylesbury Line) Amersham and Chesham / Aldgate (Metropolitan Line, London Underground)	30 mins 15 mins
CONSTRAINTS		Settlement within Green Belt. Conservation Area. M25 to southeast of settlement		

King's Langley

POPULATION		c.5700 (700 within Three Rivers)		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1146m: Kings Langley Primary		
	SECONDARY SCHOOL	Walking 1376m: Kings Langley School		
	GP SURGERY	Walking 507m: Kings Langley Surgery*		
	CONVENIENCE STORE	Within settlement: Station Hill		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Primrose Hill Playing Fields; Ovaltine Drive Play Area		
	SPORTS/LEISURE FACILITY	One location within settlement boundary		
	LIBRARY	Walking 421m: Kings Langley Library*		
	COMMUNITY CENTRE/HALL	Walking 411m: Kings Langley Community Centre*		
	BUS SERVICE	R9	Watford / Chipperfield	Daily
		H19	Hemel / Kings Langley	Daily
	RAIL STATION	Kings Langley Station	Milton Keynes / London Euston (West Coast Main Line)	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.
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*Utilises paved footpath. GP Surgery: Kings Langley Surgery (1061m) without footpath.

Leavesden and Garston

POPULATION		c. 5100		
	PRIMARY SCHOOL	Within settlement: St Catherine of Siena RC JMI; Coates Way School; Garston Manor School		
	SECONDARY SCHOOL	Within settlement: multiple schools including Parmiter's School; St Michael's Catholic High School; Future Academies Watford		
	GP SURGERY	Within settlement: Abbotswood Medical Centre		
	CONVENIENCE STORE	Within settlement: Katherine Place		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including Thomas Parmiter Sports Centre; Leavesden Country Park; Ridgehurst Avenue Playground		
	SPORTS/LEISURE FACILITY	Two recorded locations within settlement		
	LIBRARY	Walking route outside threshold distance. Cycling 2148m: Abbots Langley Library		
	COMMUNITY CENTRE/HALL	Walking 536m: Woodside Community Centre		
	BUS SERVICE	R9	Garston / Chipperfield	Daily
		329	Abbots / Watford	1 hour
		20	Watford / Hemel	30 mins
		725	Harlow / Stevenage	1 hour
		724	Heathrow / Harlow	1 hour
		635	Hitchin / Watford	1 hour
		321	Watford / Luton	30 mins
		361	New Greens / Borehamwood	Daily
RAIL STATION	Walking route outside threshold distance. Cycling 1830m: Garston	Watford / St Albans (Abbey Line)	30 mins	
CONSTRAINTS		Settlement surrounded by Green Belt. Public open space at northwest of settlement and flood zone to east.		

Loudwater

POPULATION		c. 1300		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1807m: The Royal Masonic School for Girls		
	SECONDARY SCHOOL	Walking 1807m: The Royal Masonic School for Girls		
	GP SURGERY	Walking route outside threshold distance. Cycling 3006m: The Colne Practice		
	CONVENIENCE STORE	Walking route outside threshold distance. Cycling 1770m: Rickmansworth Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	Walking route outside threshold distance. Cycling 1787m: Chorleywood Common		
	SPORTS/LEISURE FACILITY	Walking route outside threshold distance. Cycling 2280m: Chorleywood Cricket Club		
	LIBRARY	Walking route outside threshold distance. Cycling 3545m: Chorleywood Community Library		
	COMMUNITY CENTRE/HALL	Walking route outside threshold distance. Cycling 2061m: Christ Church Chorleywood (complex)		
	BUS SERVICE	No bus services identified		
	RAIL STATION	Walking route outside threshold distance. Cycling 2308m: Rickmansworth	Chiltern Railways/Underground	15 mins

Maple Cross

POPULATION		c.2500		
	PRIMARY SCHOOL	Within settlement: Maple Cross JMI		
	SECONDARY SCHOOL	Walking 1326m: The Reach Free School		
	GP SURGERY	Walking route outside threshold distance. Cycling 2861m: Gade Surgery		
	CONVENIENCE STORE	Within settlement: Chalfont Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Maple Cross Recreation Ground; Hornhill Recreation Ground; Beechen Wood Play Area		
	SPORTS/LEISURE FACILITY	One recorded location within settlement		
	LIBRARY	Walking route outside threshold distance. Cycling 3842m: Rickmansworth Library		
	COMMUNITY CENTRE/HALL	Within settlement: Maple Cross & West Hyde Community Centre		
	BUS SERVICE	R1	Maple Cross / Watford	Daily

		R2	Chorleywood / Mount Vernon Hospital	2 Daily
		W1	Maple Cross / Garston	Daily
		725	Heathrow / Stevenage	1 hour
		951	Thorpe Park / Borehamwood	Daily
		724	Heathrow / Harlow	1 hour
	RAIL STATION	Walking route outside threshold distance. Cycling 3772m: Rickmans worth	Aylesbury Vale Parkway / London Marylebone (Chiltern Railways London – Aylesbury Line)	30 mins
			Amersham and Chesham / Aldgate (Metropolitan Line, London Underground)	15 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Public open space to east and west of settlement, wildlife site to north.		

Mill End

POPULATION		c.5100		
	PRIMARY SCHOOL	Within settlement: Shepherd's JMI and Nursery; St Peter's C of E VA Primary; St Johns RC Primary		
	SECONDARY SCHOOL	Within Settlement: The Reach Free School		
	GP SURGERY	Walking 1356m: Gade Surgery		
	CONVENIENCE STORE	Within settlement: Church Lane; Berry Lane (Tudor Parade)		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including King George V Playing Field		
	SPORTS/LEISURE FACILITY	Two recorded locations within settlement		
	LIBRARY	Walking route outside threshold distance. Cycling 2941m: Rickmansworth Library		
	COMMUNITY CENTRE/HALL	Within settlement: Mill End Community Centre		
	BUS SERVICE	R1	Maple Cross / Watford	Daily
		R2	Chorleywood / Mount Vernon Hospital	2 Daily
		322	Rickmansworth / Hemel	30 mins
		724	Heathrow / Harlow	1 hour
		725	Heathrow / Stevenage	1 hour
		951	Thorpe Park / Borehamwood	Daily
		W1	Maple Cross / Garston	Daily

	RAIL STATION	Walking route outside threshold distance. Cycling 2208m: Rickmansworth	Aylesbury Vale Parkway / London Marylebone (Chiltern Railways London – Aylesbury Line)	30 mins
			Amersham and Chesham / Aldgate (Metropolitan Line, London Underground)	15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, M25 to north, flood zones to south, public open space, and wildlife sites within settlement.		

Moor Park

POPULATION		c.2600		
	PRIMARY SCHOOL	Within settlement: Merchant Taylors' Prep School		
	SECONDARY SCHOOL	Walking 1726m: Merchant Taylors' School		
	GP SURGERY	Walking route outside threshold distance. Cycling 2269m: Eastbury Surgery		
	CONVENIENCE STORE	Within settlement: Main Avenue		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Grove Green; Rickmansworth Public Golf Course		
	SPORTS/LEISURE FACILITY	One recorded location within settlement		
	LIBRARY	Walking route outside threshold distance. Cycling 2082m: Northwood Library		
	COMMUNITY CENTRE/HALL	Walking route outside threshold distance. Cycling 2370m: Saint John's United Reformed Church		
	BUS SERVICE	N/a	No recorded locations	N/a
	RAIL STATION	Moor Park	Amersham, Chesham and Watford/ Aldgate (Metropolitan Line, London Underground)	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.		

Oxhey Hall

POPULATION		c.2700		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1332m: Colnbrook School		
	SECONDARY SCHOOL	Walking 1488m: Colnbrook School		
	GP SURGERY	Walking route outside threshold distance. Cycling 1765m: South Oxhey Surgery		
	CONVENIENCE STORE	Walking 1498m: Station Approach (South Oxhey)		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including South Oxhey Playing Fields; Bushey Cricket Club		
	SPORTS/LEISURE FACILITY	One recorded location within settlement		
	LIBRARY	Walking route outside threshold distance. Cycling 1638m: Oxhey Library		
	COMMUNITY CENTRE/HALL	Within settlement: Oxhey Hall Community Association		
	BUS SERVICE	328	Watford / Mount Vernon Hospital	1 hour
		R16	Bushey / Watford	Daily
		R17	Hatch End / South Oxhey	Daily
	RAIL STATION	Walking route outside threshold distance. Cycling 1787m: Carpenders Park Station	London Euston / Milton Keynes (West Coast Main Line)	20 mins
			London Euston/ Watford Junction (Lioness Line, London Overground)	15 mins
CONSTRAINTS		Settlement surrounded by Green Belt. Flood zone to east, and running through part of settlement. Wildlife sites and public open space to south.		

Pimlico

POPULATION		c.140		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 2019m: Bedmond Academy		
	SECONDARY SCHOOL	Walking route outside threshold distance. Cycling 2070m: Woodfield School		
	GP SURGERY	Walking route outside threshold distance. Cycling 3469m: Bennetts End Surgery		
	CONVENIENCE STORE	Walking 1586m: High Street (Bedmond)		

	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Tornado Sports Club		
	SPORTS/LEISURE FACILITY	Within settlement: Tornado Sports Club		
	LIBRARY	Walking route outside threshold distance. Cycling 1877m: Leverstock Green Library		
	COMMUNITY CENTRE/HALL	Walking route outside threshold distance. Cycling 1724m: Bedmond Village Hall		
	BUS SERVICE	20	Watford/Hemel	30 mins
		320	Maple Cross/Hemel	Daily
	RAIL STATION	Walking route outside threshold distance. Cycling 4246m: Apsley Station	London Euston / Milton Keynes	30mins
CONSTRAINTS		Settlement within Green Belt. On Boundary with St. Albans District Council to east of settlement		

Rickmansworth

POPULATION		c.5700		
	PRIMARY SCHOOL	Within settlement: Rickmansworth Park JMI; St Mary's C of E; The Royal Masonic School for Girls		
	SECONDARY SCHOOL	Within settlement: St Joan of Arc RC School		
	GP SURGERY	Within settlement: Gade House; The Colne Practice		
	CONVENIENCE STORE	Within settlement: High Street; Station Road; Church Street; Moneyhill Parade		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including Rickmansworth Park; Ebury Play Area; Scotsbridge Play Area		
	SPORTS/LEISURE FACILITY	Five recorded locations within settlement		
	LIBRARY	Within settlement: Rickmansworth Library		
	COMMUNITY CENTRE/HALL	Within settlement: The Cloisters Town Hall		
	BUS SERVICE	322	Rickmansworth / Hemel	30 mins
		336	Bushey / Chorleywood	1-2 hours
		724	Heathrow / Harlow	1 hour
		725	Heathrow / Stevenage	1 hour
		951	Thorpe Park / Borehamwood	Daily
		R1	Maple Cross / Watford	Daily

		R2	Chorleywood / Mount Vernon Hospital	2 Daily
		W1	Maple Cross / Garston	Daily
	RAIL STATION	Rickmans worth	Aylesbury Vale Parkway / London Marylebone (Chiltern Railways London – Aylesbury Line)	30 mins
			Amersham and Chesham / Aldgate (Metropolitan Line, London Underground)	15 mins
CONSTRAINTS		Settlement surrounded by Green Belt, flood zones to east and south, conservation areas, wildlife sites and public open space within settlement.		

Sandy Lodge

POPULATION		c. 170		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1718m: Merchant Taylors' Prep School		
	SECONDARY SCHOOL	Within settlement: Merchant Taylors' School		
	GP SURGERY	Walking route outside threshold distance. Cycling 2721m: South Oxhey Surgery		
	CONVENIENCE STORE	Walking 1062m: Main Avenue		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Sandy Lodge Golf Course		
	SPORTS/LEISURE FACILITY	Within settlement: Merchant Taylors' School*; Sandy Lodge Golf Course		
	LIBRARY	Walking route outside threshold distance. Cycling 2755m: Oxhey Library		
	COMMUNITY CENTRE/HALL	Walking route outside threshold distance. Cycling 2591m: St Joseph's Catholic Church Hall		
	BUS SERVICE	No bus services identified		
	RAIL STATION	Walking 990m: Moor Park	Amersham, Chesham and Watford/ Aldgate (Metropolitan Line, London Underground)	15 mins
CONSTRAINTS		Settlement within Green Belt. Flood zone to north and east of settlement		

*Sports facilities available for hire

Sarratt

POPULATION		c.800		
	PRIMARY SCHOOL	Within settlement: Sarratt C of E		
	SECONDARY SCHOOL	No walking route. 3108m: St Clement Danes School		
	GP SURGERY	Within settlement: Dr. Corp and Partners		
	CONVENIENCE STORE	Within settlement: The Green		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including The Green; King George V Playing Fields		
	SPORTS/LEISURE FACILITY	Within settlement: King George V Playing Fields		
	LIBRARY	No walking route. Cycling 4852m: Chorleywood Community Library		
	COMMUNITY CENTRE/HALL	Within settlement: Sarratt Village Hall		
	BUS SERVICE	352	Watford/Hemel	2 hours
	RAIL STATION	No walking route. Cycling 4517m: Chorleywood Station	Aylesbury Vale Parkway / London Marylebone (Chiltern Railways London – Aylesbury Line) Amersham and Chesham / Aldgate (Metropolitan Line, London Underground)	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		

South Oxhey

POPULATION		c.13600		
	PRIMARY SCHOOL	Within settlement: St Joseph RC JMI, Warren Dell JMI, Oxhey Wood JMI, Woodhall JMI, Greenfield JMI; Colnbrook School		
	SECONDARY SCHOOL	Walking 900m: Colnbrook School		
	GP SURGERY	Within settlement: Manor View at South Oxhey; South Oxhey Surgery		
	CONVENIENCE STORE	Within settlement: Prestwick Road; Station Approach; Fairfield Avenue; Little Oxhey Lane; Prestwick Road (south); Hallows Crescent		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: multiple locations including South Oxhey Playing Fields; Prestwick Road Allotments; Ashridge Play Area		
	SPORTS/LEISURE FACILITY	Four recorded locations within settlement		
	LIBRARY	Within settlement: Oxhey Library		

	COMMUNITY CENTRE/HALL	Within settlement: St Joseph's Catholic Church Hall; William Morris Hall		
	BUS SERVICE	R16	Bushey / Watford	Daily
		R17	Hatch End / South Oxhey	Daily
		328	Watford / Mount Vernon Hospital	1 hour
		346	Northwood / Watford	1 hour
		W19	Watford / Carpenders Park	1 hour
	RAIL STATION	Carpenders Park	Euston/Watford Junction (Lioness Line, London Overground)	15 mins
CONSTRAINTS		Green Belt surrounding settlement, local nature reserve, public open space and wildlife sites to west of settlement, railway line to east.		

Tolpits Lane/Croxley Business Park

POPULATION		c.160		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 974m: Ascot Road Community Free School		
	SECONDARY SCHOOL	Walking 1308m: Westfield Academy		
	GP SURGERY	Walking 1279m: Bridgewater Surgeries		
	CONVENIENCE STORE	Walking 893m: Ascot Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: Croxley Common Moor; Park at The Hive		
	SPORTS/LEISURE FACILITY	Within settlement: Anytime Fitness (Croxley Park)		
	LIBRARY	Walking route outside threshold distance. Cycling 2223m: Croxley Green Library		
	COMMUNITY CENTRE/HALL	Walking route outside threshold distance. Cycling 2542m: Multicultural Community Centre		
	BUS SERVICE	W30	Watford/Holywell	15mins
	RAIL STATION	Walking route outside threshold distance. Cycling 2207m: Watford Station	Aldgate (Metropolitan Line, London Underground)	15mins
CONSTRAINTS		Settlement surrounded by Green Belt, flood zone to south, wildlife site, Local Nature Reserve and public open space		

Toms Lane

POPULATION		c. 800		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1327m: Bedmond Academy		
	SECONDARY SCHOOL	Walking 2610m: Kings Langley School		
	GP SURGERY	Walking route outside threshold distance. 1739m: Kings Langley Surgery		
	CONVENIENCE STORE	Walking 973m: Station Hill		
	PUBLICLY ACCESSIBLE OPEN SPACE	Walking route outside threshold distance. Cycling 1043m: Bedmond Recreation Ground		
	SPORTS/LEISURE FACILITY	Walking 1243m: Primrose Hill		
	LIBRARY	Walking route outside threshold distance. Cycling 1653m: Kings Langley Library		
	COMMUNITY CENTRE/HALL	Walking 1500m: Bedmond Village Hall		
	BUS SERVICE	H19	Kings Langley/Hemel Hempstead	Daily
	RAIL STATION	Walking route outside threshold distance. Cycling 1849m: Kings Langley Station	Milton Keynes / London Euston (West Coast Main Line)	30 mins
CONSTRAINTS		Settlement within Green Belt. West Coast Mainline railway at west of settlement, M25 to south		

West Hyde

POPULATION		c.140		
	PRIMARY SCHOOL	Walking route outside threshold distance. Cycling 1084m: Maple Cross JMI		
	SECONDARY SCHOOL	Walking 2456m: The Reach Free School		
	GP SURGERY	Walking route outside threshold distance. Cycling 2564m: Harefield Practice		
	CONVENIENCE STORE	Walking 1489m: Chalfont Road		
	PUBLICLY ACCESSIBLE OPEN SPACE	Within settlement: St Thomas's Church; Allotments at Old Uxbridge Road		
	SPORTS/LEISURE FACILITY	Within settlement: West Hyde & Maple Cross Youth Centre		
	LIBRARY	Walking route outside threshold distance. Cycling 2323m: Harefield Library		

	COMMUNITY CENTRE/HALL	Walking route outside threshold distance. Cycling 2452m: St Marys Church Hall		
	BUS SERVICE	No bus services identified		
	RAIL STATION	Walking route outside threshold distance. Cycling 4169m: Denham Station	London Marylebone/High Wycombe	1 hour
	CONSTRAINTS	Settlement within Green Belt. Flood zone and wildlife site at east of settlement		

4. Settlement Sustainability

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

This section will score the sustainability of the settlement on a sliding scale that results in categorisation from very good to very poor. Population information and the interrelationships between settlements is then factored into the hierarchical ordering of settlements.

In order to assess sustainability, scores have been allocated for each key facility/service (primary school, secondary school, GP surgery, convenience store, library, publicly accessible open space, community leisure facility), based on the distance to the facility/service from the settlement centre, according to the accessibility thresholds set out in Table 1. The allocation of scores is based on the underlying assumption that closer proximity to a facility increases accessibility and therefore sustainability.

Although the majority of the assessment is focussed on walking, cycling has been factored in as it is a sustainable form of transport that we are encouraging and improving links and developing new routes for. However, we acknowledge this cannot be a universal indicator comparable to walking as not everyone cycles or is able to cycle. Further to this, in some cases, although cycling is technically feasible from a distance perspective, it may not always be suitable, such as on narrow lanes, at busy times of the day. Subsequently, the points awarded to the settlement score for cycling is equivalent to a small proportion of the walking score (around 25%).

Table 3: Scoring of Facilities in relation to settlement

FACILITY LOCATION	SCORE
Within settlement	2
Within lower walking threshold distance	1.5
Within upper walking threshold distance	1
Within cycling threshold distance	0.5

The above scores are added up and if a settlement scores 16 out of 16, they are given 4 bonus points, to give further weight to the most sustainable settlements with the largest range of facilities, meaning that there is a maximum score of 20 points available for services within walking distance. The cycling score is singular and is a maximum of 4 points, with 1 bonus point awarded in line with the walking methodology, meaning that the maximum score for cycling is 5, so the combined walking and cycling maximum score is 25.

Table 4: Scoring of infrastructure provision

Bus services and railway stations have been considered separately to allow recognition of the levels of service provision. There is a maximum score of 8 points in the category for bus services (equating to 2 up to 30 minute services or 4 hourly services, for example). These are taken from the most frequent services at peak times, so bus services may be less frequent at other times of the day.

A railway station within the settlement equates to 12 points, and the distance thresholds and scoring are set out in Table 1 and 4 respectively. Because services are at least every 30 minutes as the most frequent times of day, we have not scored individually for frequency of a rail service. 2 points have been awarded if the railway station is within cycling distance. Subsequently, the maximum score for bus and train services is 22 points.

Therefore, the maximum score overall for a settlement is 47 points.

	INFRASTRUCTURE PROVISION	SCORE
BUS SERVICES	Peak time interval 0-30 minutes	4 per service
	Peak time interval more than 30 minutes up to 60 minutes	2 per service
	Peak time interval more than 60 minutes	1 per service
	No service	0
RAIL STATION	Within settlement	12
	Within lower threshold distance	8
	Within upper threshold distance	4
	Within cycling distance	2

Since the data considered in determining sustainability provide only an indication, production of a 'sustainability score' would be misleading, so settlements have instead

been placed into broad categories. Settlements may be described as having very good, good, fair, or poor or very poor sustainability, according to their performance in relation of proximity to facilities/services and infrastructure provision. To place settlements in sustainability category, the average score for all facilities in a settlement is added to the score for bus service provision to give a settlement total score which is then used to place settlements into a hierarchy.

Table 5: Categories of Accessibility

Settlement Total Score	Sustainability Category
40-47	Very Good
30-39	Good
20-29	Fair
10-19	Poor
0-9	Very Poor

Table 6: Settlement Sustainability Scores/Categories

Settlement	Population (approx)	Sustainability Category
Rickmansworth	5700	Very Good (47)
Croxley Green	12800	Very Good (47)
South Oxhey	13600	Very Good (42.5)
Chorleywood	10800	Very Good (42)
Carpenders Park	5000	Good (37.5)
Kings Langley	700(5700)	Good (35)
Abbots Langley	9200	Good (30)
Leavesden and Garston	5100	Fair (28.5)
Mill End	5100	Fair (28)
Moor Park	2600	Fair (28)
Maple Cross	2500	Fair (26.5)
Eastbury	3500	Fair (24)
Bedmond	900	Fair (22)
Sarratt	800	Fair (20)
Oxhey Hall	2700	Poor (19.5)
Sandy Lodge	170	Poor (19)
Tolpits Lane	160	Poor (17.5)
Pimlico	140	Poor (17)
Harthall Lane	160	Poor (14.5)
Batchworth	250	Poor (14)
West Hyde	140	Poor (13)
Toms Lane	800	Poor (12.5)
Belsize	200	Very Poor (9.5)
Loudwater	1300	Very Poor (8)
Heronsgate	220	Very Poor (8)

Chandlers Cross	130	Very Poor (7)
Bucks Hill	150	Very Poor (5.5)

5: Settlement Hierarchy

In terms of the classification of the settlements, this is determined by the settlement sustainability, particularly in terms of range of facilities/services and an indication of population size.

Because we have several settlements that are connected, the exact population is often difficult to determine and therefore should not be used as a sole indicator of where a settlement sits in the hierarchy. Subsequently, often the settlements with the largest populations are the most sustainable, or the most sustainable settlements have the highest population, but this is not a universally applicable statement.

We also have several settlements that are connected to existing larger settlements, such as Watford or the London Boroughs. These do not comfortably fit into a town or village description, so alternative names have been given for these settlements to recognise their particular local characteristics.

The five hierarchical levels are set out as follows:

Principal Town

Notwithstanding absolute constraints, the largest development allocations should occur in and around the principal town, with brownfield sites being maximised in capacity in the most sustainable settlement.

Small Towns/Large Suburban Settlements

The majority of housing should be allocated in and around these settlements, as collectively, they are the most sustainable settlements after the singular principal town. Some of these settlements should be able to support high density urban development.

Large Village/Suburban Settlements

Relatively significant levels of development should be allocated to these settlements, but this will vary from settlement to settlement, given their own unique characteristics and current levels of sustainability to support development.

Green Belt Villages/Small Suburban Settlements

Limited development can be allocated to these settlements, in order to support their limited range of services and facilities. However, due to their rural character and washed over green belt status, the level of development should not significantly alter the character and rural nature of the settlement.

Green Belt Hamlet

Development is not normally allocated in these settlements, although it does not preclude them from occasional windfall applications or rural exception development.

Principal Town

Rickmansworth

Rickmansworth has the largest town centre with the widest range of services and best transport links in the district.

However, the decision to undertake a granular assessment, reflecting historic and established boundaries, while continuing to recognise the identity of neighbouring settlements, has resulted in the recorded population of Rickmansworth being much lower than is often considered as the established population. Reflective of the dense spatial distribution of the settlement(s), Rickmansworth is often considered to include Mill End and parts of Chorleywood that are contiguous to the core of the town, as well as Croxley Green, Batchworth and Loudwater on occasions, where there are barely distinguishable gaps, swelling the population to 26,291.

As referred to above, the much smaller population than is normally referred to, is a result of parts of Chorleywood east of the M25 being considered part of Rickmansworth, which has been updated to take account of the parish boundary rather than the M25, built long after the dwellings that are on the eastern side of it.

Subsequently, Rickmansworth supports the settlements in close proximity to the town and vice versa. The Very Good sustainability score (maximum points awarded) is a result of the settlement benefitting from all eight of the facilities/services measured, a train station and a good bus service.

Small Towns/Large Suburban Settlements

Chorleywood

The settlement of Chorleywood has been updated to reflect the parish boundary map, excluding individual settlements such as Loudwater and Heronsgate, that will be assessed separately. It is the largest settlement by area, characterised predominantly by low density detached housing, with Chorleywood Golf Course and the M25 effectively dividing it into three. Services are concentrated towards the west, while the eastern part of the settlement mainly relies on Rickmansworth for services and sustainable transport options.

Chorleywood is served very well by facilities and has a railway station and good road links, including a M25 junction. However, in terms of bus services, there are less than you would expect of a settlement of this size, something that is often symptomatic of large areas of low-density development. This means that it sits just behind Rickmansworth and Croxley Green in terms of overall sustainability, but is still in the 'very good' overall category for sustainability.

South Oxhey

South Oxhey has the largest individual population by settlement definition in the district (although it is contiguous with Watford to the east). While not the largest in area, South Oxhey is the most densely populated part of the district. It sits between Pinner (London Borough of Harrow) and Watford, with a small amount of open space between both.

Originally developed predominantly as a post-war council estate, significant areas had become run-down by the 2000's and it has been subject to large-scale regeneration, with a high proportion of flatted development increasing the density further.

South Oxhey's 'Very Good' sustainability score is reflective of having all services (aside from a secondary school), its train station and good bus links.

Abbots Langley

Abbots Langley is the third largest distinct settlement in the district in terms of population. It is situated on the north-western edge of Watford but has its own High Street and retains a level of separation in terms of character and form. The settlements of Abbots Langley and Watford connect on the eastern and western edges, mainly with parkland between the remainder of the settlement boundary.

Abbots Langley is a relatively sustainable settlement and well served by major facilities and services, with only the secondary school and train station being located outside of the settlement. The secondary school is within the upper threshold distance but Kings Langley train station is just outside of the upper threshold distance, which reduces the overall score for the settlement; this is reflected in its 'Good' sustainability score.

Croxley Green

Croxley Green is situated between Rickmansworth and Watford and very close to both, with only the River Chess separating it from Rickmansworth and the Grand Union Canal and River Gade separating it from Watford, subsequently maintaining good transport links to both settlements. Within the district it is the second most densely populated area and the fourth largest settlement in terms of population.

Croxley Green is excellently served from a facilities and sustainable transport perspective, with all identified facilities/services being available within the settlement boundary and benefitting from its position between Watford and Rickmansworth, with 5 (at least) hourly services and a railway station with services into London every 15 minutes. This is reflected in its maximum score, one of only two settlements to achieve this (Rickmansworth being the other).

Large Villages/Suburban Settlements

Eastbury

Eastbury sits on the southern boundary of Three Rivers and is predominantly a residential area contiguous with Northwood in the London Borough of Hillingdon. The area is largely characterised by low density detached housing.

The residential nature of the settlement with no defined neighbourhood centre means that access to services is relatively low for the size of settlement, although the settlement does extend into Hillingdon to the south. There is only a primary school and open spaces within the settlement out of the eight facilities/services measured. There are two hourly bus services that serve the settlement. Northwood station is within the upper threshold distance to the south west of the main settlement.

The factors combine to categorise the settlement as 'Fair' in terms of sustainability.

Moor Park

Moor Park is also contiguous with Northwood (London Borough of Hillingdon) and is situated on the opposite side of the railway to Eastbury. It is similar in character to Eastbury, but much of it is also a private estate built at even lower density. It was built almost entirely as an expansion of London in the 1930's. Moor Park is served by its own tube station, the only TFL station inside a gated private estate.

The low sustainability rating in comparison to its population is symptomatic of its character and reflects the residential nature of it. Aside from the tube station on site which is highly positive in terms of sustainability, it only has 3 of the 8 measured facilities/services within its boundary and no bus service, which subsequently amounts to an overall 'fair' categorisation in terms of sustainability.

Carpenders Park

Carpenders Park was largely developed on the 1930's as a private housing estate, with council housing added post-war and accommodates a range of housing types.

It is well served by facilities and transport for a settlement of its size. Only a Secondary school and library are situated outside of the settlement, with Oxhey Library within the upper threshold distance. There is an overground train station that runs into London Euston and Watford Junction frequently and a frequent and varied bus service. These factors together mean that Carpenders Park scores highly, in the upper end of the 'Good' category in terms of sustainability.

Kings Langley

Kings Langley is the largest standalone village connected to Three Rivers, however, the vast majority of the village is in Dacorum, with just over 10% of the population in Three Rivers, on the eastern side of the River Gade and Grand Union Canal.

The village itself is well served by services, but the measurements to them have been taken from the edge of the Three Rivers settlement boundary, so any facilities in the

village are measured from there, up to the upper threshold. This is because we can only influence and account for development and policies within our boundary, so the sustainability score is lower than if the entirety of the village was in our district. The railway station is within Three Rivers boundary.

Notwithstanding this, it still scores relatively highly, placing within the 'Good' sustainability category.

Leavesden and Garston

Leavesden and Garston sit on the northern edge of Watford. The area is characterised by a mix of suburban residential development and a large commercial area, including the expanding Warner Bros studios. There is also new housing on the old aerodrome site, and the settlement boundary has been expanded to encompass these features.

Contained within the area are 6 of 8 measured facilities/services, the exceptions being a library and community centre. Given some of Leavesden and Garston is outside of the district boundary, there may be closer services within the part of the settlement that falls within Watford Borough, but there are difficulties with establishing exact boundaries for these areas outside the district boundary. Typifying a well-connected suburb of a large town, there are many bus routes, with 6 running at least hourly. There is also a train station in Garston an example of a service outside of Three Rivers district (but within Garston).

Despite only a small part of the settlement(s) being within the district, it still scores relatively well for sustainability, at the upper end of the 'Fair' category.

Mill End

Mill End is situated to the west of Rickmansworth town. It was historically a separate village but now adjoins the settlement. However, Mill End retains its own distinct character, with its own neighbourhood centre and mix of dwelling types, including terraced houses, not often encountered in Rickmansworth.

The settlement benefits from a widerange of bus services, given its location adjacent to Rickmansworth. Within the settlement there are 5 of the 8 assessed facilities/services, with two within the upper threshold distance. However, services that are unavailable in Mill End itself can be accessed in Rickmansworth by sustainable transport methods such as by bus, cycling or walking.

However, the lack of railway station and only just over half the facilities within the settlement means Mill End only scores well enough to place towards the top of the 'Fair' category for sustainability.

Maple Cross

Maple Cross is a large village in the south-west part of the district and the only large standalone village entirely within Three Rivers. Until after the Second World War it was no more than a hamlet, before 800 council houses were built in the 1950's and 1960's, which still accounts for a significant proportion of the housing stock today.

For its size, it has a good range of services, with 5 of the 8 measured facilities/services within the settlement and one within the upper threshold distance. It also has a wide range of bus services, benefitting from its location on the A412/Denham Way.

This results in a score placing it in the 'Fair' category for sustainability.

Green Belt Villages/Small Suburban Settlements

Bedmond

Bedmond lies directly to the north of Abbots Langley, on the northern side of the M25. It is centred around the busy High St/Bedmond Road, which continues north into Hemel Hempstead a couple of miles to the north.

Bedmond is one of the largest villages in the district and has half of the recorded facilities within the settlement boundary and a reasonable bus service at least partly due to its location between the large settlements of Hemel Hempstead and Watford/Abbots Langley.

Subsequently, a score categorising it as 'Fair' in terms of sustainability appears reflective of the settlement.

Loudwater

Loudwater is a private residential estate on the northern edge of Rickmansworth. It is characterised by low density housing in a wooded setting.

Loudwater has an absence of community facilities and services, serving purely as a residential commuter settlement. It has a disproportionately large population for a settlement that offers none of the recorded facilities or services. Subsequently, the settlement is categorised as 'Very Poor' in terms of sustainability.

Sarratt

Sarratt is a village in the northern part of the district on the edge of the Chiltern Hills, characterised by a historic core with a large conservation area and large elongated village green.

Sarratt has many of the recorded range of facilities, albeit smaller or more limited availability. For example, the doctors' surgery is only available one morning per week. The bus service through the village is limited with no nearby train station.

However, due to the range of facilities in Sarratt, it still attracts a 'Fair' categorisation in terms of sustainability.

Green Belt Hamlets

All Green Belt hamlets are categorised as 'Poor' or Very Poor in terms of sustainability.

Batchworth

Batchworth is situated directly south of Rickmansworth on the southern side of the River Colne, Chess and Grand Union Canal.

It has Batchworth Golf Course but little else in terms of facilities, however, its close proximity to Rickmansworth and the northern edge of Moor Park means it does benefit from some walkable facilities in those settlements.

Subsequently, it falls into the second lowest sustainability category of 'Poor'.

Belsize

Belsize is a hamlet just to the north of Sarratt and south of Chipperfield, on the northern edge of the district.

It does benefit from a pub, but none of the assessed facilities on our list. The same bus service that serves Sarratt runs through Belsize. However, this is not quite enough to prevent the sustainability of the village as being categorised as 'Very Poor'.

Bucks Hill

Bucks Hill is a rural hamlet broadly grouped with several others in the north of the district, including Belsize.

Bucks Hill has a pub, but none of the facilities on our list or within the threshold distances, nor does it have a bus service. Subsequently, the only points it scores are due to being within the cycling threshold of most facilities.

Chandlers Cross

The settlement lies on the southern edge of M25, south east of Sarratt and the more significant settlements in the borough, including Rickmansworth and Croxley Green to the south and south east respectively.

It only has one named facility and no others within threshold distance and no bus service. It is categorised as being 'Very Poor' in terms of sustainability because of this.

Harthall Lane

Harthall Lane is predominantly a ribbon development running east from Kings Langley and the mainline, eventually reaching the junction with Bedmond Road.

It has none of the recorded facilities and no bus service, although it is close enough to Kings Langley to benefit from several of its facilities, which means it avoids the lowest sustainability category, instead being classed as 'Poor'.

Heronsgate

Heronsgate, on the southern edge of Chorleywood, has an interesting history as the first Chartists settlement, founded in 1846. Today, it consists mainly of two parallel

roads with no discernible centre, characterised by low density development in a heavily wooded setting.

Due to its close proximity to other settlements, in particular Chorleywood, it does benefit from being within threshold distance of some facilities, but it still falls into the 'Very Poor' sustainability category.

Pimlico

Pimlico is a hamlet in the north-east corner of the borough, just to the north of Bedmond and south of Hemel Hempstead, broadly situated along Bedmond Road, as a ribbon development.

The Tornado Sports Ground counts towards both Open Space and a Sports/Leisure Facility and it has good bus services being on the same road as Bedmond, meaning that despite its very small size, it sits comfortably within the 'Poor' category for sustainability, rather than 'Very Poor' as may be expected from its small size.

Sandy Lodge

Sandy Lodge is essentially a small extension east of Moor Park private estate, mainly running along Sandy Lodge Lane and adjacent to Sandy Lodge golf course.

For its small size, it is relatively well serviced with open space and sports/leisure facilities, with a convenience store and rail station within upper threshold distance, meaning it scores towards the top of the 'Poor' category for sustainability.

Tolpits Lane/Croxley Business Park

This is an area attached to Watford Borough that is predominantly commercial, but several buildings have now been converted into flats, enough to meet the minimum threshold for assessment.

Primarily due to its location on the edge of larger sustainable settlements, it also performs well for its size, with a regular bus service, a gym and other facilities within upper threshold distance, ranking comfortably within the second lowest 'Poor' category for sustainability.

Toms Lane

Toms Lane is broadly parallel to Harthall Lane and bears similar characteristics in that it is predominantly ribbon development, mainly consisting of detached dwellings, with some bungalows and semi-detached dwellings. It is however a more substantial settlement and also houses a mobile home park.

Also similar to Harthall Lane, it has limited sustainability benefit from being close enough to an adjacent settlement to benefit from some of its facilities but is slightly closer to Bedmond than Kings Langley. It is categorised as 'Poor' in terms of sustainability.

West Hyde

West Hyde is a small settlement south of Maple Cross in the south west corner of the district. It is set back from the main A412, on the adjacent 'Old Uxbridge Road'. It is flanked by a series of lakes to the east and HS2 works to the west.

It has 2 of the 8 facilities within the settlement (open space and sports/leisure facility) which is sufficient to rank as 'Poor' for sustainability.

Hamlets of below 100 residents have not been assessed as they are equally unsustainable, lacking in any services/facilities

6: 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 and importance.

Settlements have been placed into sustainability categories, and settlement boundaries have been fixed for this purpose, however, the boundaries given may not relate to everyday life, particularly where settlements coalesce, or are within a few hundred metres of each other at their nearest point, a scenario that is relatively common in Three Rivers. This may affect how sustainable settlements are in practice, as people utilise services in a variety of settlements.

For areas on the periphery of larger settlements where dwellings may be distanced from facilities generally located in settlement centres, the scoring only flags that the facility is within the settlement. This means that there may be variations in sustainability within settlements, however, these variations are beyond the scope of this study and can be studied on a smaller scale (i.e on a site-by-site basis), using this study as an initial guide.

Despite the limitations, the category of sustainability to which a settlement has been placed provides an indication of the potential for growth.

The settlement hierarchy categorises Rickmansworth, Croxley Green, Chorleywood and South Oxhey as the most sustainable settlements in Three Rivers, categorised as having 'Very Good' sustainability according to the level of access to key services and facilities and the provision of public transport services.

Higher sustainability scores are largely driven by size of settlement, although there are examples where this is not quite the case. These included Rickmansworth indicated as having a relatively small population, but gaining a high sustainability score, because nearby coalesced or almost coalescing settlements support the relatively large retail and service centre. Carpenders Park also has a higher score than you may expect from the size of the population because it was planned and built as a discrete estate with a neighbourhood centre and good transport links, including a railway station.

Conversely, Oxhey Hall, Eastbury and Loudwater have lower scores than may be expected for the size of the population, mainly because they are predominantly residential neighbourhoods on the edge of larger better served communities,

sometimes outside of the district. The smaller villages of Bedmond and Saratt score within the 'Fair' category as there are the small range of facilities to support a standalone settlement that isn't in close proximity to a larger one.

There are other settlements, particularly in the south of the district, that are characterised by better train links, but poorer access to services within the settlement. For example, Moor Park has access to a train station within the settlement but has otherwise relatively poor access to a range of facilities/services, as it is a predominantly residential estate, and the proximity to a station pushes it into 'Fair' in terms of their overall sustainability score.

In terms of the cycling scoring, most of the facilities are within a reasonable and safe (as described in the methodology) cycling distance, in adjacent settlements if not the cyclists' own. This reflects the condensed spatial pattern of development in the district discussed in the methodology, because while there may not be many large well serviced sustainable settlements, the small distances between many of them make cycling possible in most instances.

All Green Belt Hamlets score 'Poor' in terms of sustainability.

Settlements with sustainability scores of 'Very Good' are expected to take the most development as these are our most sustainable settlements. However, this can be dependent on the availability and suitability of the proposed sites.

Settlements described as 'Good' in sustainability terms are likely to accommodate significant levels of additional development as the second most sustainable category of settlement.

Settlements categorised as 'Fair' for sustainability should expect to accommodate some additional development, however this will vary from settlement to settlement within the category. For example, the 'washed over' green belt settlements within the category should only accept limited development.

Settlements described as 'Poor' or 'Very Poor' in the sustainability hierarchy are only likely to attract limited infill development or minor redevelopments, comparative to the size of the settlement.

