Strategic Assessment of Need for

Swimming Pools Provision in London 2017 - 2041

Facilities Planning Model

Date of report

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Contents

Section 1: Introduction

1.1 The Greater London Authority (GLA) wishes to develop an evidence base assessment of need for swimming pools. The assessment is based on the current provision of swimming pools and the supply, demand and access to them for community use in 2017. Then a second assessment based on 2041, to identify how the projected population growth 2017 – 2041 changes the total demand for swimming pools and the distribution of demand.

1.2 The GLA has requested Sport England to apply the Sport England Facilities Planning Model (FPM) to produce the data for these assessments. In 2010 the GLA requested Sport England to undertake a similar study, so as to provide an evidence base for swimming pools in both 2010 and 2022. The outcomes of that study provided an evidence base which was applied in the GLA 2nd London Plan.

1.3 This report presents the findings from the swimming pool FPM assessment for 2017 and 2041. It will be used by the GLA to inform policies in the new London Plan, a draft of which is to be published in autumn 2017. The work is based on two separate pieces of analysis (known as runs) which have been modelled.

- Run 1 current supply of swimming pools across London in 2017, plus the pools in the neighbouring local authorities to London, and where the catchment area of these pools extends into London.

- Run 2 the projected demand for swimming pools in 2041, based on the projected population growth across London and the surrounding local authorities. Both runs use the GLA 2015 based population projections for the 32 London Boroughs. For the wider study area of the neighbouring local authorities, ONS projections have been applied, based on the 2039 ONS data and with an uplift to 2041.

1.4 The assessment is based on swimming pools where there is community use in some, or, all of the weekly peak period of weekday evenings and weekend days. To be included in the assessment, there has to be community use and the pool size has to be a minimum of 160 sq metres of water, a 20m x 4 lane pool.

1.5 The assessment also includes how accessible the swimming pool sites by different travel modes. For the walking catchment it is 20 minutes/1mile . the public transport catchment area for a swimming pool is set at 20 minutes' travel time. The car travel catchment area of a swimming pool is 20 minutes' drive time. The travel modes do not include travel to swimming pools by cycling.

This is because there is insufficient data to be able to project the amount of visits by cycling, or, develop a travel time/distance catchment area for cycling

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1.6 Finally, by way of introduction to the assessment, it includes: an analysis of the scale of demand which is met (satisfied demand); the scale and location of any unmet demand; an estimate of how full the swimming pools are (used capacity); and the local share of pools by residents, the last part being an equity assessment.

Sequence of reporting;

1.7 The sequence of reporting is to set out:

- An Executive Summary of key findings
- The detailed assessment for both 2017 and for 2041. This is set out for both years and so there is a "read across" and it is possible to see what has changed. This is done by a series of tables, which are followed with a commentary on the key findings. The tables are: total supply; total demand, satisfied demand; unmet demand; used capacity (how full the swimming pools are); and local share. The definition of each heading is set out at the start of the reporting
- The findings are also supported by maps to illustrate the catchment area of swimming pools and how access to pools, based on the walking and car catchments differs across London. In effect, to illustrate which areas of London have the highest and lowest access to pools based on the pool locations, catchment area and travel patterns
- The findings for the London Boroughs with the highest and lowest for each heading (for example satisfied demand) are also included in the main report. So it is possible to see the variation from lowest to highest - the variations are quite significant
- There are three appendices.. Appendix 1 is a series of tables which includes ALL the London Boroughs and sets out the findings on supply, demand, met and unmet demand etc, for all 32 London Boroughs. Appendix 2 is a description of all the individual swimming pools included in the assessment. Appendix 3 is a description of the facilities planning model parameters.

Facilities Planning Model

1.8 The Sport England Facilities Planning Model is the industry benchmark standard for undertaking needs assessment for the main community sports facilities. It is compliant with meeting the requirements for needs assessment, as set out in paragraphs 73 – 74 of the National Planning Policy Framework.

1.9 The FPM is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with Sport Scotland and Sport England since the 1980s. The model is a tool to help to assess the strategic provision of community sports facilities in an area. It is currently applicable for use in assessing the provision of sports halls, swimming pools, and full size artificial grass pitches.

1.10 The FPM is applied for local authority assessments for these facility types. It can also be applied to indoor bowls as a specialist topic and this is usually in connection with commercial studies or Governing Body studies.

1.11 Sport England uses the FPM as one of its principal tools in helping to assess the strategic need for certain community sports facilities. The FPM has been developed as a means of:

- Assessing requirements for different types of community sports facilities on a local, regional or national scale
- Helping local authorities to determine an adequate level of sports facility provision to meet their local needs
- Helping to identify strategic gaps in the provision of sports facilities
- Comparing alternative options for planned provision, taking account of changes in demand and supply. This includes testing the impact of opening, relocating and closing facilities, and the likely impact of population changes on the needs for sports facilities.

1.12 Its current use is applied to those sports facility types for which Sport England holds substantial demand data, i.e. swimming pools, sports halls, indoor bowls and artificial grass pitches.

1.13 The FPM has been used in the assessment of Lottery funding bids for community facilities, and as a principal planning tool to assist local authorities in planning for the provision of community sports facilities.

The study area

1.14 Describing the study area provides some points of explanation and a context for the report's findings. Customers of sports facilities do not reflect local authority boundaries and whilst there are management and pricing incentives (and possibly disincentives) for customers

to use sports facilities located in the area in which they live, the reality is that people who use swimming pools travel across local authority boundaries.

1.15 Consequently, in determining the position for London, it is important to take account of the swimming pools in the neighbouring local authorities to London. In particular, to assess the impact of overlapping catchment areas of facilities. Taking account of all these factors is done by establishing a study area which places London at the centre of the study and then assesses the import and export of demand both across the London Boroughs and with the bordering local authorities to London.

1.16 In addition, this approach embraces the National Planning Policy Framework approach of taking account of neighbouring authority's facility provision, when compiling a local evidence base for provision of services and facilities.

1.17 The City of London is included in the assessment, however the City of London has only a small population of 8,855 people in 2017. So whilst the data is part of the assessment, the findings for the City of London are not included in the commentary because it is so different from the London Boroughs

Section 2: Executive Summary

2.1 The Executive Summary describes the key findings from the assessment of provision for swimming pools across London in 2017 and 2041. It sets out the main findings with a commentary on their implications. The main report then follows and which sets out the detailed findings under six different headings.

Supply of swimming pools

2.2 In 2017 there is a supply of are 400 swimming pools on 274 sites, across London, this includes all pools which are minimum size of 20m x 4 lanes (160 sq metres of water) and are available for community use in some, or, all of the weekly peak period (weekday evenings for up to 5 hours and weekend days up to 7 hours per day).

2.3 The swimming pool supply is projected to increase to 404 swimming pools and 276 swimming pool sites by 2041. This is based on the known changes and commitments to either close and replace existing pools, or, open new pools, as at 2017. The number of swimming pools will change beyond these figures but these are the known and committed changes as at 2017, as notified to the GLA and signed off by the GLA. There, of course, may be further currently unplanned centres built within this timeframe, but as these are not known they are not included.

2.4 This is the total supply of swimming pools and it equates to 96,735 sq metres of water in 2017. When supply is assessed on the supply available for community use in the weekly peak period (often referred to as the effective supply), this reduces to 84,780 sq metres of water. The reason for the difference between the total and effective supply, is because of the reduced hours for community use at pools on education sites and at some local authority pools, which are not open for all of the weekly peak period.

2.5 Of the total supply of 274 swimming pool sites in 2017, some 35 – 40 individual pools are on education sites and provide some community use. Education provision does include swimming pools located on schools, further education colleges and higher education sites.

2.6 This difference between the total and the effective supply in 2017 of 12.3%, equates to between 47 – 56 individual pools each of 25m x 4 lanes. (Note: for context a 25m x 4 lane pool is between 210 and 250 sq metres of water, depending on lane width, and hence the variation of 47 – 56 pools). This is a significance difference and if all of the water space, currently not available, could be made available, then it would increase pool provision by this range of 47 – 56 swimming pools. This would make a sizeable contribution to reducing unmet demand, without having to build any more pools.

2.7 Pools with reduced hours for community use are on education sites predominantly. There are, however, also local authority pools, where the hours for community use are more limited, for example, the William Bird Pool in Hillingdon has 24 hours of community use in the weekly peak period. Appendix 1 lists the hours available for community use at each swimming pool site, making it possible to see the variation in hours for community use and where intervention is required. The total hours for community use in the weekly peak period is 52 hours.

2.8 A comparative measure for assessing supply of pools on a consistent basis, is water space per 1,000 population. Across London, there are 11 sq metres of water per 1,000 population in 2017. In 2041 this reduces to 9 sq metres of water, per 1,000 population. This illustrates the impact of the projected increase in demand from population growth on the supply base, with the water space per 1,000 population decreasing by 18% by 2041. The England wide findings are 12 sq metres of water space per 1,000 population in 2017 and 11 sq metres of water space per 1,000 population in 2041. The increase in demand from population growth and decrease in water space is greater in London than for England.

2.9 The range of provision in individual local authorities by this measurement is very wide. The lowest provision is in Brent at 3.7 sq metres of water per 1,000 population in 2017. The highest provision is in Hammersmith and Fulham, at 20.3 sq metres of water per 1,000 population in 2017, meaning there is a difference of over 16 sq metres of water per 1,000 population between the Boroughs with the lowest and the highest amount of water space.

Demand for swimming pools

2.10 The total demand for swimming pools is measured in the same way as supply, in terms of numbers of visits in the weekly peak period and in sq metres of water. The demand assessment is based on the GLA 2015 based population projections for the 32 London Boroughs, plus the City of London.

2.11 The total demand for swimming pools is then determined from this population and by the percentage of the population who participate and their frequency of participation in swimming. These participation rates are for 6 different age bands and for both genders. (Appendix 3 sets out the FPM demand parameters for swimming pools).

2.12 The demand for swimming is for the activities of: learn to swim; public recreational swimming (pay and swim); lane and fitness swimming activities; and swimming development through clubs.

2.13 The total population in London in 2017 is 8,835m and this is projected to increase to 10,.663m by 2041. Based on the participation rates and frequency of swimming participation from this population, it generates a total demand for 98,712 sq metres of water in 2017. This increases to a total demand for 114, 625 sq metres of water by 2041.

2.14 The population increase of 20.6%, creates an increase in demand for swimming of 16.1% between 2017 and 2041. This assumes the rate of swimming participation remains unchanged between the two years. The England wide rate of increase in demand for swimming from population growth over the same 2017 – 2041 period, is projected to be 9.8%. So again, the impact of the projected population growth and increase in demand for swimming in London has a much bigger impact than across England.

2.15 The highest demand for swimming in 2017 is in Barnet and equates to 4,309 sq metres of water. The lowest demand (excluding the City of London) is in Kensington and Chelsea at 1,726 sq metres of water. These Boroughs also have the highest and lowest projected demand in 2041, although Newham is almost the same as Barnet. (Again for context a 25m x 4 lane pool is between 210 – 250 sq metres of water, depending on lane width).

Satisfied demand for swimming

2.16 Satisfied demand measures the amount of total demand that can be met by the supply of swimming pools. This is based on the catchment area of the pools, the travel patterns to pools and the demand located within the catchment area of each pool.

2.17 Nearly 93% of the total demand for swimming pools across London is met in 2017. The impact of the changes in swimming pool supply and the projected changes in demand from swimming from population growth, means that in 2041 a projected 90.5% of the total demand for swimming can be met.

2.18 In short, there are sufficient pools with enough capacity across London to accommodate nine out of ten visits to a pool in both years. The England wide figures for satisfied demand are 91% of total demand being met in 2017 and 90.2% in 2041. Both sets of findings assume the rate and frequency of swimming participation does not change between the two years.

2.19 Satisfied demand in 2017 is highest, in order of - Westminster, Richmond on Thames, Wandsworth, Kensington and Chelsea, Hammersmith and Fulham, Islington and Merton; with all between around 95% - 96% of total demand as satisfied demand in 2017. Satisfied demand is lowest, at between 83% - 86% of total demand, in Barking and Dagenham, Brent and Haringey.

2.20 The same boroughs have the highest and lowest percentages for satisfied demand in 2041. Whilst the percentages for both the highest and lowest levels of satisfied demand are both high, there is still a 12% – 13% difference between the lowest and highest.

This is quite a variation in the levels of satisfied demand and identifies where intervention is required to increase the levels of satisfied demand.

Unmet demand for swimming

2.21 Unmet demand has two definitions (1) demand for a swimming pool which cannot be met because there is not enough capacity to meet all the demand in the catchment area of the pool's location. (2) Demand which is located outside the catchment area of a swimming pool and cannot access a pool. This is defined as unmet demand outside catchment.

2.22 The London unmet demand is 7.2% of total demand in 2017 and projected to increase to 9.5% of total demand by 2041. This equates to 7,058 sq metres of water in 2017 and 10,873 sq metres of water in 2041. This equates to between 28 and 33 pools in 2017 and between 43 and 51 pools in 2041, if each pool was a 25m x 4 lanes pool and depending on lane width. This is a high level of unmet demand, when expressed in numbers of swimming pools.

2.23 Of the total unmet demand, 23% in 2017 is due to lack of pool capacity and this is projected to increase to 42% of total unmet demand by 2041. As demand grows from the population increase, so does the need for more pools because of lack of existing swimming pool capacity. It represents 1,665 sq metres of water in 2017 and 4,566 sq metres of water in 2041. Put another way, the equivalent of between 6 – 8 pools each of 25m x 4 lane pools in 2017 and 16 - 18 pools in 2041.

2.24 Addressing unmet demand is about a lack of swimming pool capacity but it is also about definition 2 - demand which is located outside the catchment area of a swimming pool. This is the bigger part of unmet demand and it represents 77% of all the unmet demand in 2017 and 58% in 2041.

2.25 Unmet demand from lack of access is predominately demand located outside the walking catchment area of a pool. Of the total 77% in 2017 some 72% is by residents who do not have access to a car and it is 55% of the total 58% in 2041. The key finding here is the need for a network of local accessible pools by public transport, walking and cycling, so that residents who do not have a car (and this is over 60% of the population in some inner London Boroughs), can have access to a swimming pool.

2.26 The highest amounts of unmet demand in 2017 are located in Barking and Dagenham, Haringey, Brent, Newham Southwark, Lambeth and Waltham Forest. In 2041 there is a bigger and concentred area of unmet demand across the same boroughs but now but now also including Hackney and Tower Hamlets (Maps 3.3 and 3.4 in the main report).

Used capacity (how full are the swimming pools?)

2.27 Used capacity – is a measure of how full the pools are estimated to be and it is also a measure of the level of imported demand. The imported demand refers to where the nearest pool for a resident in (say) Tower Hamlets is a pool in (say) Hackney, then if the Tower Hamlet resident uses the nearest pool to where they live, then this becomes part of the used capacity of the pool in Hackney.

2.28 Sport England sets a comfort factor for pools being comfortably full and this is 70% of the total pool capacity. Beyond this 70% level, the pool itself becomes too full and detracts from the ability to swim and the enjoyment. Also the changing and circulation areas become over full and again detracting from enjoyment and this can lower participation.

2.29 In 2017, the London average for pool capacity used is 74% in the weekly peak period. This is projected to increase to 82.5% in 2041. So both figures are above the Sport England pools full comfort level of 70% of pool capacity used at peak times. The reason for the pools being so full is because demand is greater than supply in both years.

2.30 Used capacity at the Borough level is highest in Enfield and Hackney at 96% of pool capacity used, with 93% of pool capacity used in Newham and Redbridge.

2.31 Used capacity is lowest in Bromley at 49% of pool capacity used in 2017. However, Bromley does have the largest supply of pools in water space in London and there are 13 swimming pool sites in Bromley. It is therefore important to look at the water space available and not just the percentage. 48% of pool capacity used in Bromley is a lot higher in terms of actual usage than a Borough which has (say) 65% of pool capacity used but a smaller amount of water space.

2.32 Used capacity is next lowest in Westminster at 52% of pool capacity used in 2017 and then in Richmond on Thames where it is 54% of pool capacity used. Used capacity is possibly the most important heading for findings and so it is important to set out why used capacity does vary

- The rates of swimming participation will vary between Boroughs and this creates different levels of demand and how full the pools are.

- There may be extensive overlap in catchment area for pools and it is very often across boundaries. In these instances the total demand will be shared amongst several pools and with lower used capacity at individual sites and Boroughs.

- The opposite can also apply, if a pool site or Borough has few or no competing pools in its catchment, it can then retain more demand and have higher used capacity than in areas where there are competing pools.

- The age of the pool, older pools have less appeal, especially if customers are may be accustomed to more modern pools that provide modern changing accommodation and have other features such as a health suite. There is a draw to more modern pools and higher usage than at older pools. Recent research has identified that customers are prepared to travel a bit further, if they can access a modern swimming pool.

- Most important is the size of the pool site. A pool of say 25m x 8 lanes and 420 sq metres of water could have a lower used capacity in percentage terms (say 50%) than a 25m x 4 lane pool of 210 – 250 sq metres of water, (say 65%). However the larger pool can accommodate a much higher level of use because of its size. So the size of the pool and the total water area are very important when considering used capacities across pool sites - not just comparing the percentage figures. The reference already made about Bromley underlines this point.

- The type of use and access to a pool. Commercial swimming pools provide for recreational swimming by the centre membership. The level of pool capacity used reflects this type of use, and usually the used capacity of commercial pools in health and fitness centres is lower than the used capacity for public leisure centre swimming pools. The latter provide for all types of swimming activity of: learn to swim; public recreational swimming; lane and fitness swimming activities; and swimming development through clubs. They are also accessible on a pay and swim basis for everyone and have the longest opening hours of pools. For all these reasons, they attract a higher level of usage than commercial pools and the used capacity of public leisure centres are usually very high.

2.33 Undoubtedly, the supply position could be very different in 2041 and there could be a further increase in the supply of pools. The findings do, however, underline the importance of increasing access to the existing swimming pools, which have limited access for community use and, in effect, make more use of what already exists.

2.34 It is also important to ensure that pools are accessible by a range of means, in particular by public transport, walking and cycling, to reduce the issue of unmet demand located outside a catchment area.

Imported demand for swimming

2.35 As already set out, imported demand is measured under used capacity. Some authorities consider providing swimming pools to meet the needs of their residents is very important. These authorities are most interested in how much of their demand is met inside the authority and how much demand is imported. Other authorities are less concerned with the distribution of demand and much more focused on how full the pools are, regardless almost of where the people come from.

2.36 Imported demand is highest in 2017 in Kensington and Chelsea at 56% of the pool capacity used, Hammersmith and Fulham at 53% of pool capacity used and Newham at 51% of pool capacity used. Imported demand is lowest in Bexley, Croydon and Havering, all at 28% of pool capacity used in the weekly peak period. So again a wide variation, with over 50% of the pool capacity used in Kensington and Chelsea and Hammersmith and Fulham being from outside these Boroughs.

Summary

2.37 This executive summary has set out the London wide findings for swimming pools provision 2017 – 2041. The key finding is that the demand for swimming is greater than supply in both years. The unmet demand for swimming equates to between to between 28 and 33 pools in 2017 and between 43 and 51 pools in 2041, if each pool was a 25m x 4 lane pool. The variation in the number of pools is because of the varying lane width of a 25m x 4 lane pool.

2.38 There are two sources of this unmet demand, the first is lack of swimming pool capacity and this represents 23% in 2017 and is projected to increase to 42% of total unmet demand by 2041. This shows a need to provide more pools. A related finding is that because of the distribution of demand, the pools in some Boroughs are estimated to be very full in both years.

2.39 The second source of unmet demand is demand located outside the catchment area of a swimming pool. This is the bigger part of unmet demand and it represents 77% of all the unmet demand in 2017 and 58% in 2041.

2.40 Unmet demand from lack of access is predominately demand located outside the walking catchment area of a pool. Of the total 77% in 2017, some 72% is by residents who do not have access to a car and it is 55% of the total 58% in 2041. So residents in these areas have difficulty accessing the pools. The key finding here is the need for a network of local accessible pools by public transport, walking and cycling, so that residents who do not have a car (and this is over 60% of the population in some inner London Boroughs), can have access to a swimming pool. One way of increasing supply is to increase access to swimming pools which have more

limited hours for community use, predominantly those on education sites but also some local authority leisure centre pools. This could address around 10% of the demand deficit, if all these pools were open for community use in the weekly peak period.

2.41 Other key findings relate to the London findings being far more significant than for England. For example, the projected increase in demand for swimming in London between 2017 and 2041 is over 16%, compared with just under 10% for England. Also there is projected to be a much higher increase in demand for swimming in London than for England.

2.42 The report on the detailed findings for the 2017 and projected changes up to 2041 for provision of swimming pools are set out next.

Section 3: Main findings for swimming pools – run 1 (2017) and run 2 (2041).

Introduction

3.1 Reporting the main findings follows a sequence of setting out the data in a table for both runs from the fpm analysis. Then to provide a bullet point commentary on the main findings.

3.2 Based on these findings, then specific maps or further tables/graphs are included to explain in more detail the key findings. Run 1 is assessment of 2017 and run 2 is the assessment for 2041.

3.3 As mentioned in the Introduction, the City of London is included in the assessment (and tables) but because it has such a small population and completely different from other authorities the findings are not reported on. Despite it having a very small resident population it does have 7 swimming pool sites, which cater mainly for people who work in the City of London.

QUANTITY (SUPPLY)

Table 3.1: Runs 1 – 2 Supply of swimming pools for London 2017 and 2041

LONDON TOTAL	RUN 1	RUN 2
Total Supply	**2017**	**2041**
Number of pools	400	404
Number of pool sites	274	276
Supply of total water space in sq m	96,735	97,671
Supply of water space in sq m, scaled by hours available in the peak period	84,780	85,841
Supply of total water space in visits per week peak period	735,042	744,242
Water space per 1,000 population	11	9

3.4 Definition of total supply – Total supply measures the number of swimming pools and swimming pool sites that available for community use in the weekly peak period. Total supply also measure the number of visits each pool can accommodate in sq metres of water and in visits for community use in the weekly peak period. Finally supply measures the amount of water space per 1,000 population.

3.5 The key findings for runs 1 and 2 are:

- In 2017 there are 400 pools on 274 sites, across all the London boroughs. The supply is projected to increase to 404 pools on 276 sites by 2041. This is the known committed changes in swimming pool supply as at 2017 and which has been used in the modelling. The database was reviewed and signed off by the GLA. There will obviously be further changes in swimming pool supply up to 2041.

- This is the total supply of swimming pools and equates to 96,735 sq metres of water in 2017. When the supply is assessed based on the supply available for community use in the weekly peak period (often referred to as the effective supply), this reduces to 84,780 sq metres of water, The reason for the difference between the total and effective supply is because of the reduced hours for community use at pool at local authority sites and; on education sites, where individual schools, colleges and higher education are determining the policy and amount of community use of pools.

- The difference between the total supply of water space and the effective supply in 2017 is 11,955 sq metres of water, or, 12.3% of the total supply of water space, which is not available. Put another way, this equates to between 47 – 56 pools with each being a 25m x 4 lane pool. (Note: for context a 25m x 4 lane pool is between 210 and 250 sq metres of water depending on lane width).

- The five London Boroughs which have the highest number of pools (in green) and the five with the least number of pools (in pink) is set out in Table 3.2 overleaf and this is based on the effective supply. There is a big variation in the number of pools ranging from 5 pools in Barking and Dagenham to 22 pools in Bromley. This is creating poor access to pools for residents in the Boroughs with the lowest supply.

Table 3.2: Number of swimming pools London Boroughs 2017 and 2041

Number of pools	RUN 1	RUN 2
London average	**2017**	**2041**
Barking & Dagenham	5.0	5.0
Barnet	18.0	18.0
Bexley	7.0	7.0
Brent	6.0	8.0
Bromley	22.0	22.0
Croydon	19.0	19.0
Hammersmith & Fulham	18.0	18.0
Hounslow	18.0	18.0
Kingston upon Thames	7.0	7.0
Sutton	6.0	6.0
Westminster	19.0	18.0

3.6 A comparative measure for assessing supply of pools across each of the authorities on a consistent basis is water space per 1,000 population. Across London there are 11 sq metres of water per 1,000 population in 2017. The impact of population change to 2041 is to reduce this to 9 sq metres of water per 1,000 population. The England wide findings are 12 sq metres of water per 1,000 population in 2017 and 11 sq metres of water per 1,000 population in 2041. So in both years, London as an average has a lower supply of water space per 1,000 population than across England.

3.7 The findings for the London Boroughs with the highest and lowest provision for both years is set out in Table 3.3. Again, the authorities with the highest provision are highlighted in green and those with the lowest in pink.

3.8 The range of provision by this measurement is quite wide with the lowest being in Brent at 3.7 sq metres of water per 1,000 population in 2017 and the highest being in Hammersmith and Fulham at 20.3 sq metres of water per 1,000 population in 2017. Again residents in the Boroughs with the lowest supply of pools will be disadvantaged.

Table 3.3: Pools per 1,000 population London Boroughs 2017 and 2041

Water space per 1,000 population	RUN 1	RUN 2
London average	2017	2041
Barking & Dagenham	6.0	4.3
Bexley	6.8	6.2
Brent	3.7	4.2
Bromley	19.9	18.0
Hammersmith & Fulham	20.3	16.8
Haringey	6.8	5.7
Hounslow	14.8	12.8
Lambeth	6.8	5.3
Merton	14.6	13.1
Redbridge	5.8	5.8
Sutton	6.5	5.9
Westminster	17.3	13.3

QUANTITY (TOTAL DEMAND)

Table 3.4: Runs 1 – 2 Demand for Swimming Pools for London 2017 and 2041

LONDON TOTAL	RUN 1	RUN 2
Total Demand	2017	2041
Population	8,835,569	10,663,387

Swims demanded – visits per week peak period	594,802	690,692
Equivalent in water space – with comfort factor included	98,712	114,625

3.9 Definition of total demand - total demand is the measurement of the demand for swimming pools measured in the same way as supply, in terms of numbers of visits in the weekly peak period and sq metres of water The demand assessment is based on the GLA 2015 based population projections for the 32 London Boroughs, plus the City of London. The total demand for swimming pools is then determined from this population and by the percentage of the population who participate and their frequency of participation. This is for 6 different age bands and for males and females. Appendix 3 of the report sets out the fpm demand parameters for swimming pools.

3.10 The key findings for runs 1- 2 are:

- The total population in London in 2017 is 8,835m and this is projected to increase to 10,663m by 2041
- This population and based on the participation rates and frequency of swimming participation, generates a total demand for 98,712 sq metres of water in 2017. This increases to a total demand for 114, 625 sq metres of water by 2041. So the population increase of 20.6% from 2017 to 2041 is creating an increase in demand for swimming of 16.1% between 2017 and 2041. Assuming the rate of swimming participation remains unchanged between the two years.

SATISIFED DEMAND AND ACCESSIBILITY TO SWIMMING POOLS

Table 3.5: Runs 1 – 2 Satisfied Demand for Swimming Pools for London 2017 and 2041

LONDON TOTAL	RUN 1	RUN 2
Satisfied Demand	**2017**	**2041**
Total number of visits which are met (visits per week peak period)	552,270.	625,176.
% of total demand satisfied	92.8	90.5
Total Annual Throughput (visits per year)	41,280,296.	46,548,153.1
% of demand satisfied who travelled by car	58.2	58.8
% of demand satisfied who travelled by foot	28.	26.9
% of demand satisfied who travelled by public transport	13.8	14.2

Demand Retained (visits per week peak period)	528,184.	595,851.
Demand Retained -as a % of Satisfied Demand	95.6	95.3
Demand Exported (visits per week peak period)	24,085.	29,326.
Demand Exported -as a % of Satisfied Demand	4.4	4.7

3.11 Definition of satisfied demand – satisfied demand measures the amount of total demand that can be met by the supply of swimming pools, based on the catchment area of the pools, the travel patterns to pools and the demand located within the catchment area of each pool. The travel modes are by walking (up to 20 minutes or 1 mile) by public transport (up to 20 minutes travel time) and by car (up to 20 minutes travel time),. The travel modes do not include travel to swimming pools by cycling, as there is insufficient data to be able to assess the number of visits by cycling or the travel distance/time.

3.12 It also measures now much demand from London residents is met at pools in each borough, known as retained demand. This is based on residents using the nearest pool to where they live and the pool is located in the same borough. Finally, it measures how much of the GLA demand in each borough is exported and met at pools in neighbouring boroughs. The premise being that the nearest pool to where residents in say (Richmond) lives is a pool located in Kingston. So if the Richmond resident uses the nearest pool to where they live this becomes part of the Richmond exported demand and met in Kingston.

3.13 The main findings for runs 1- 2 on travel patterns, access to pools and the satisfied demand are:

- 92.8% of the total demand for swimming pools across London is met in 2017. This does not change much from the projected population growth and increase in demand for swimming up to 2041. Then satisfied demand is projected to still be very high at 90.5% of the total demand being met by the pool supply

- In short, there are sufficient pools with enough capacity across London to meet nine out of ten visits to a pool in both years. The England wide figures for satisfied demand are 91% of total demand being met in 2017 and 90.2% in 2041. The difference between the highest and lowest is, however, quite marked when looking at individual Boroughs. Satisfied demand being 83.7% in Barking and Dagenham in 2017 and 79.6% in 2041. Whereas it is 97% in 2017 in Westminster and 95.8% in 2041. So the range between the lowest and highest levels of satisfied demand for the Boroughs is over 13% in 2017 and 16% in 2041

- The findings for satisfied demand for the authorities with the highest and lowest levels of satisfied is set out in table 3.6 below. Again, the authorities with the highest satisfied demand are in green and those with the lowest in pink.

Table 3.6: Satisfied demand for swimming pools London Boroughs 2017 and 2041

% of total demand satisfied	RUN 1	RUN 2
London average	**2017**	**2041**
Barking & Dagenham	83.7	79.6
Brent	85.5	83.4
Hammersmith & Fulham	96.0	94.7
Haringey	85.9	82.6
Hillingdon	91.0	90.0
Islington	96.0	93.5
Kensington & Chelsea	96.5	95.3
Newham	89.2	83.6
Richmond upon Thames	96.9	96.9
Wandsworth	96.7	95.8
Westminster	97.0	95.8

Access to pools by walking

3.14 Map 3.1 illustrates the extent of the walking catchment area of swimming pools (20 minutes/1mile). Around 40% of London is inside the walking catchment area of at least one swimming pool, these are the areas shaded beige in Map 3.1. (The walking map key is the upper key on the left side of the map). Although inner London has better walking accessibility, there are, large areas of some inner London Boroughs which are outside the walking catchment area of pools, notably, Barking and Dagenham, Haringey, Newham and Waltham Forest, and Redbridge.

3.15 In the few areas shaded red and purple residents have access to between 2 – 5 pools based on the pool locations and the walking catchment area of the pools.

Map 3.1: Walking catchment area of swimming pools 2017

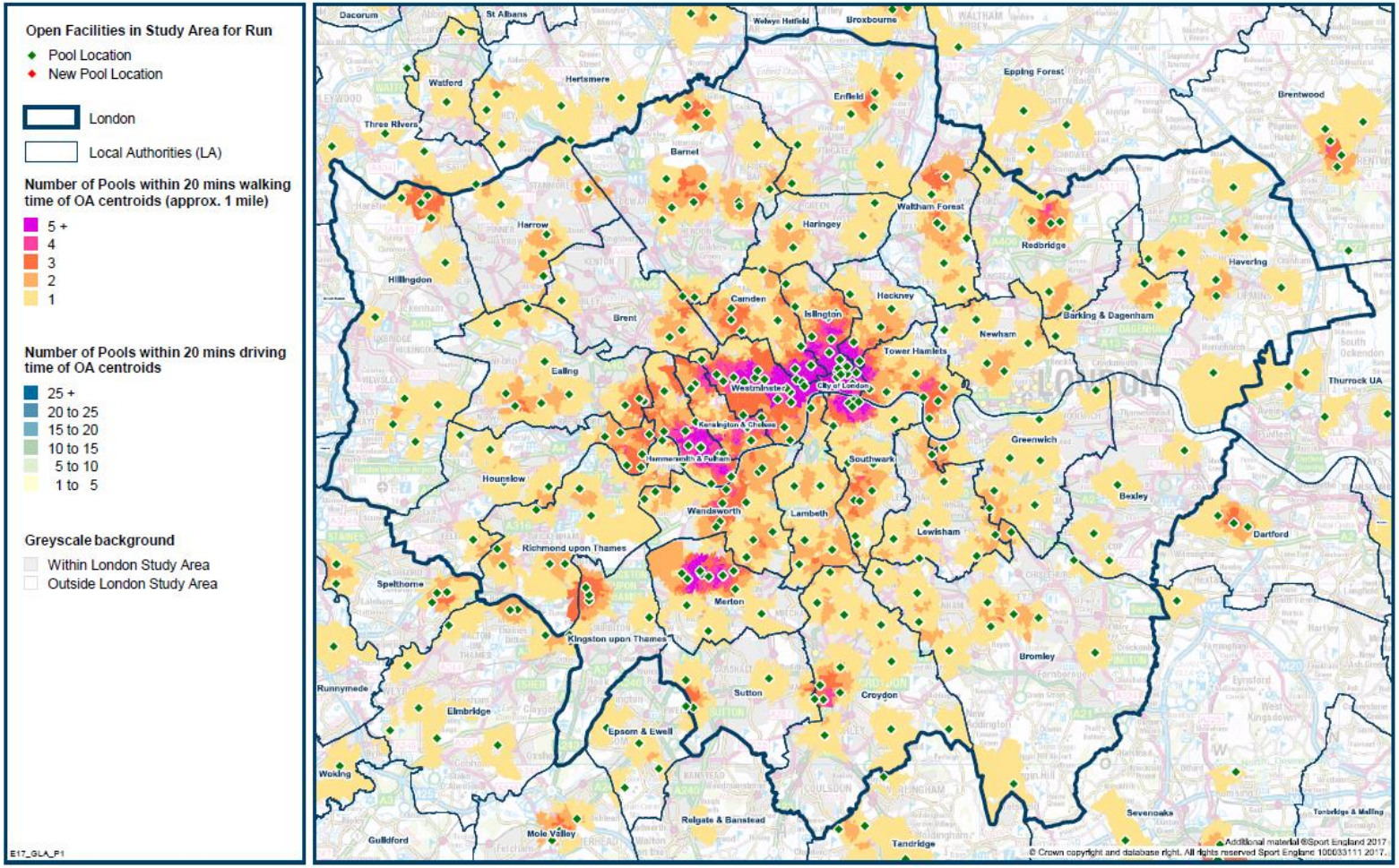
SPORT ENGLAND

Creating a sporting habit for life

Facility Planning Model - Pools Catchments for London

Run 1: 2017 Population

Catchments shown thematically (colours) at output area level expressed as the number of Pools within 20 minutes travel time of output area centroid.



3.16 The percentage of visits to pools by walking does differ across the Boroughs The findings for the Boroughs with the highest and lowest visits to pools by walking for both years is set out table 3.7, with the high percentages in green and the low percentage in pink.

3.17 There is a very high visit rate to pools by residents who walk in Camden, Hammersmith and Fulham, Tower Hamlets and Westminster. As Map 3.2 illustrates, nearly all of the land area of these boroughs is inside the walking catchment area of at least one swimming pool, so there is very high accessibility by walking.

3.18 The main travel mode to swimming pools is by car, with 58% of all visits to pools in both years (20 minutes' drive time catchment). Walking to pools (20 minutes/1 mile catchment area) accounts for 28% of visits in 2017 and 27% in 2041. Travel by public transport (20 minutes catchment area) is just under 14% of all visits to pools in 2017 and just over 14% in 2041.

Access to pools by car

3.19 Map 3.2 illustrates how many pools can be accessed by car, based on the pool locations and their 20 minutes' drive time catchment area for 2017. The colour coded key for the number of pools which can be accessed is the lower key on the left of the map. The key findings are that:

- In the areas shaded light green residents have access to between 5 – 10 pools, in the darker green areas residents have access to between 10 – 15 pools and in the lighter blue areas residents have access to between 15 – 20 pools. These are ALL areas on the periphery of London and where access is lowest in Bromley, Bexley and Enfield

- Around 70% of the land area of London is shaded dark blue and in these areas residents have access to between 20 – 25 pools, based on the pool locations and their drive time catchment area. This is a very good level of access to a high number of pools for people who travel by car

- Whilst Bromley is amongst the Boroughs with the highest swimming pool supply, it has the lowest access. This is because it has a very large land area and all its pools are clustered in the urban part of the borough. Boroughs in inner London and most of which have the lowest swimming pool supply, are benefiting from having a smaller land area, and the drive time catchment area of many pools overlaps, so there is access to a higher number of pools.

Map 3.2: Number of pools which can be accessed by car, based on the pool locations and 20 minute drive time catchments 2017

SPORT ENGLAND

Creating a sporting habit for life

Facility Planning Model - Pools Catchments for London

Run 1: 2017 Population

Catchments shown thematically (colours) at output area level expressed as the number of Pools within 20 minutes travel time of output area centroid.

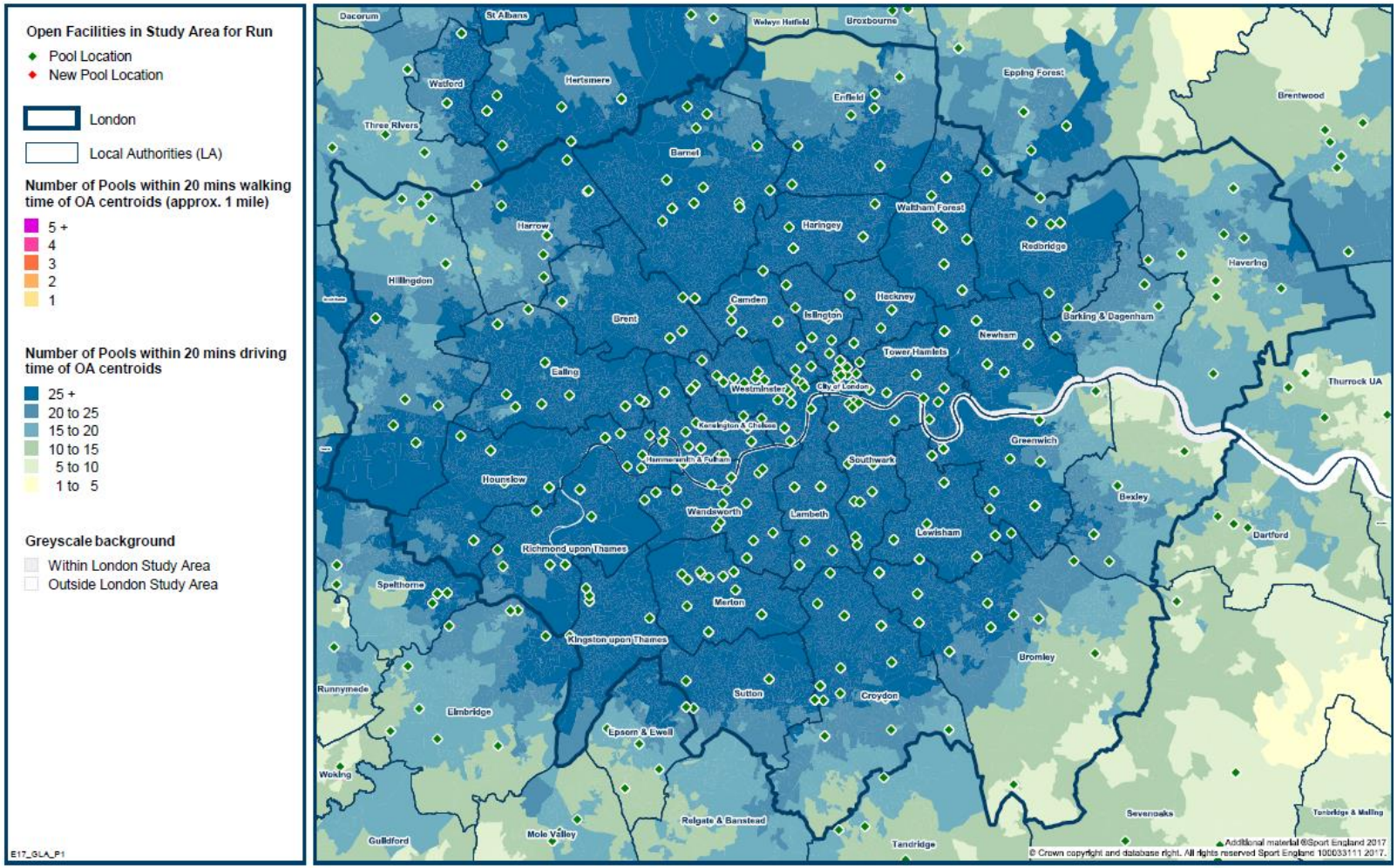


Table 3.7: Percentage of visits to pitches by walking for each London Boroughs 2017 and 2041

% of demand satisfied who travelled by foot	RUN 1	RUN 2
London average	**2017**	**2041**
Barking & Dagenham	14.9	15.8
Barnet	12.9	11.5
Bexley	9.4	8.2
Camden	53.9	52.7
Hackney	46.9	42.4
Hammersmith & Fulham	47.6	46.4
Harrow	12.3	12.3
Hillingdon	8.8	8.3
Sutton	11.4	11.0
Tower Hamlets	51.3	46.0
Westminster	60.8	58.5

Retained demand

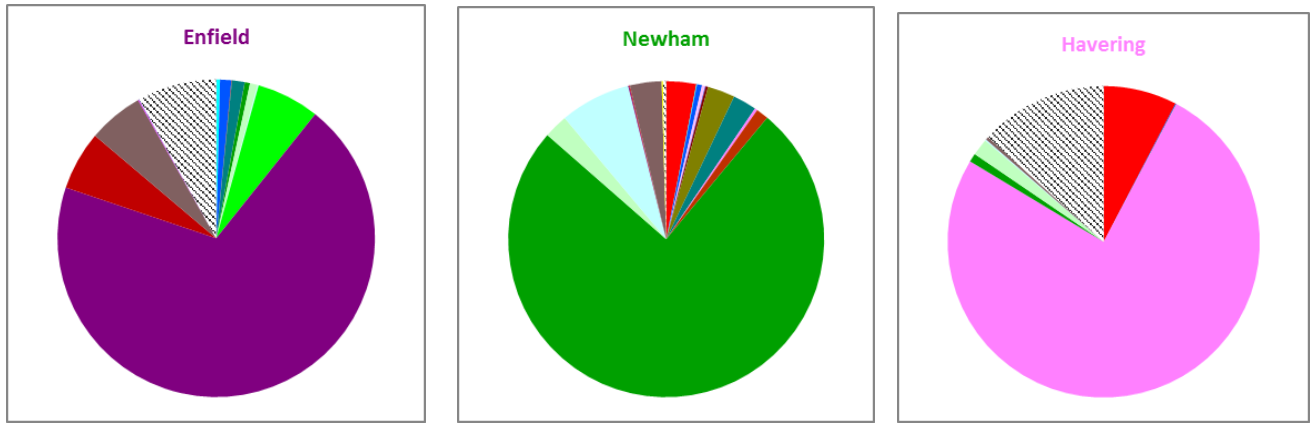
3.20 It is also possible to measure how much of the GLA demand for pools in authority A is retained at pools in authority A - known as retained demand. This is based on the location and catchment area of the swimming pools and residents traveling to and using the nearest pool to where they live. In both years the total retained demand by each borough adds up to 95% of the total demand which is met across London.

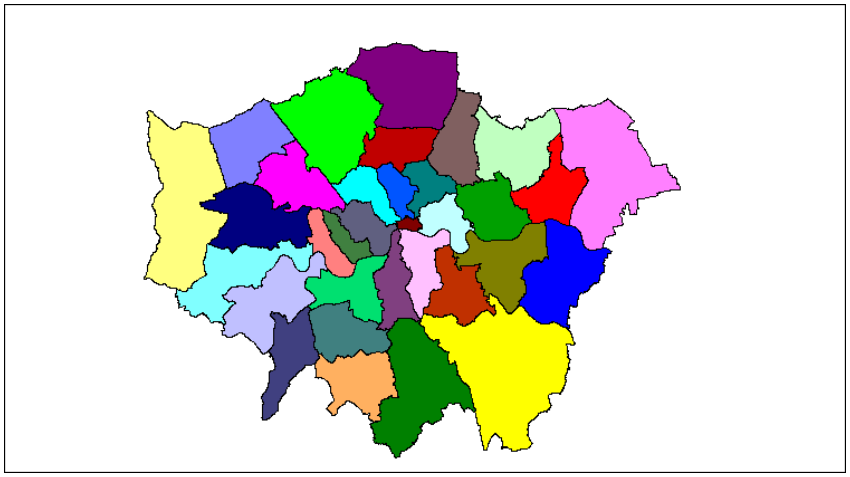
3.21 This is a very high level of retained demand and demonstrates that the pool locations and their catchment areas within London are very well aligned with where the demand for swimming is located. So much so that for over nine out of ten visits to a pool by a London resident it is to a pool located inside London and this is for both years.

3.22 Retained demand within each borough does vary considerably from the London average and the boroughs with the highest retained are shown in chart 3.1 and this is for 2017. The largest part of the pie chart reflects the share of satisfied demand retained within that borough. For example the area shaded purple for Enfield. The smaller slices of the pie chart, represent the amount of demand

exported and where it goes to. In the Enfield example it shows the largest export is to Barnet (lime green), Haringey (brown) and outside London (dotted). The colour coded map for each Borough is set out below the pie charts.

Chart 3.1: Boroughs with the highest level of retained demand for swimming 2017 and the GLA Boroughs map



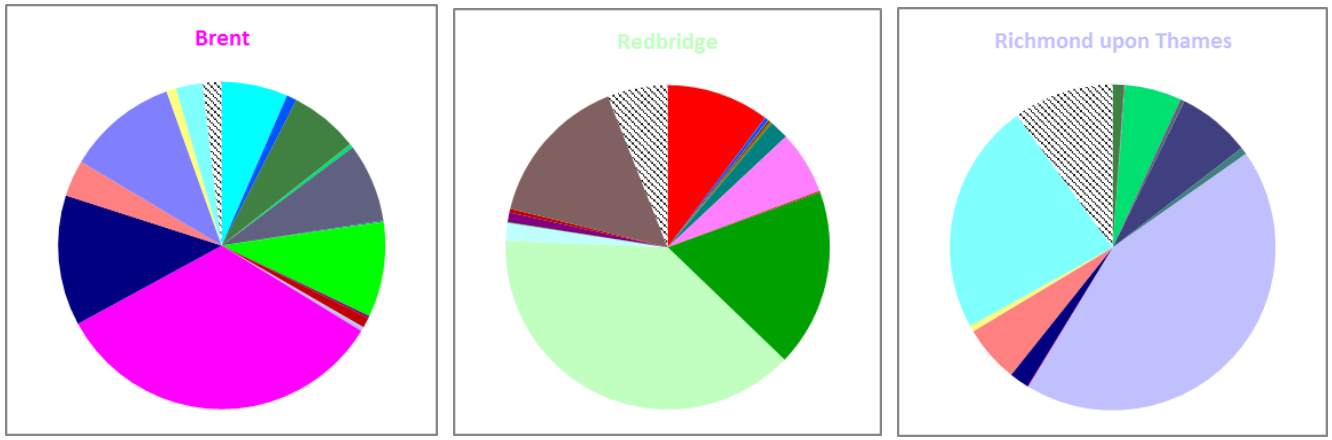


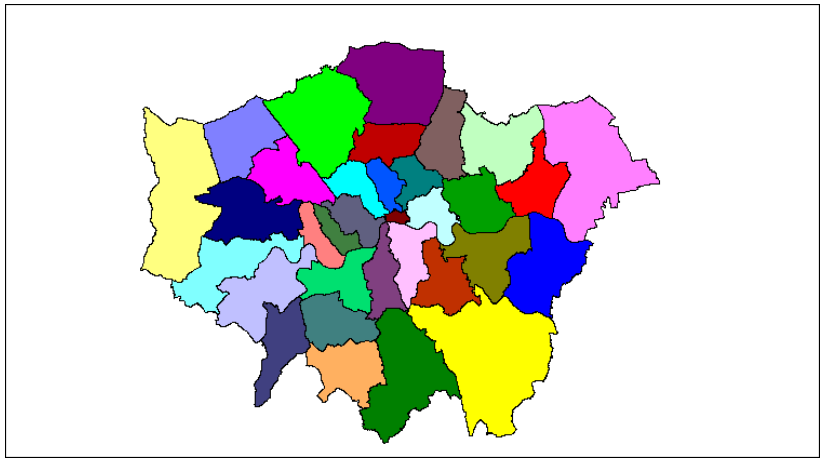
Exported demand

- The reciprocal of retained demand is exported demand and in both 2017 and 2041 less than 5% of the total London satisfied demand is exported outside London. Again and as with retained demand, exported demand levels does vary across the Boroughs. The Boroughs with the lowest retained demand have the highest exported demand and these are shown in the pie charts in chart 3.2. For example the Brent retained demand is shaded purple in the pie chart and represents 33% of the total Brent satisfied demand for swimming that is met in the Borough. The remainder of the Brent satisfied demand is exported to 12 authorities, as shown in the pie chart. So meeting the Brent demand for swimming, is very much dependent on Brent residents being able to access the swimming pool supply in neighbouring Boroughs. The largest exports of the Brent demand goes to Ealing (dark blue) and Harrow (indigo blue. This is also the case for Redbridge and Richmond, with Redbridge retaining just 38% of its own demand for swimming at pools in the Borough and Richmond on Thames 43%.

- The findings on retained and exported demand for swimming are important, IF Boroughs consider it is important to provide for and meet the demand for swimming by its residents at pools in their Borough. Some authorities consider this to be very important, whilst others do not, so long as their demand for swimming can be met. Some authorities welcome exported demand, from other authorities, if it increases the usage and income of their pools.

Chart 3.2: Boroughs with the highest level of exported demand for swimming 2017 and the GLA boroughs map





UNMET DEMAND

Table 3.8: Runs 1 – 2 Unmet Demand for Swimming Pools 2017 and 2041

LONDON TOTAL	RUN 1	RUN 2
Unmet Demand	**2017**	**2041**
Total number of visits in the peak, not currently being met (visits per week peak period)	42,532	65,515
Unmet demand as a % of total demand	7.2	9.5
Equivalent in Water space m2 - with comfort factor	7,058	10,873
% of Unmet Demand due to:		
Lack of Capacity -	23.6	42
Outside Catchment -	76.4	58
Outside Catchment:	76.4	58.
% of Unmet demand who do not have access to a car	72.8	55.3
% of Unmet demand who have access to a car	3.7	2.7
Lack of Capacity:	23.6	42.
% of Unmet demand who do not have access to a car	21.6	36.7
% of Unmet demand who have access to a car	1.9	5.3

3.23 Unmet demand has two definitions (1) demand for a swimming pool which cannot be met because there is not enough capacity to meet all the demand in the catchment area of the pool's location. (2) Unmet demand which is located outside the catchment area of a swimming pool and cannot access a pool. This is considered as unmet demand outside catchment.

3.24 Many residents in London will either use public transport or walk to pools, due to good public transport accessibility, densely populated areas and relatively low car ownership levels. This highlights the importance of ensuring that new pools are located in public transport accessible locations, with access via walking and cycling, and do not focus solely on access by car.

3.25 The summary of findings on unmet demand are:

- The total unmet demand is 7.2% of total demand in 2017 and projected to increase to 9.5% of total demand by 2041. This equates to 7,058 sq metres of water in 2017 and 10,873 sq metres of water in 2041. (For context a 25m x 4 lane pool is between 210 – 250 sq metres of water, depending on lane width).

- Of the total unmet demand, 23% in 2017 is due to lack of pool capacity and this is projected to increase to 42% of total unmet demand by 2041. The increase in unmet demand from lack of pool capacity is from the projected increase in demand from the population growth. It represents 1,665 sq metres of water in 2017 and 4,566 sq metres of water in 2041. Put another way the equivalent of 5 -6 pools each of 25m x 4 lane pools in 2017 and 16 - 18 pools depending on lane width in 2041.

- There is a difference between the total supply of water space and the effective supply in 2017 of 11,955 sq metres of water, or, 12.3% of the total supply of water space, which is not available. Put another way, this equates to between 47 – 56 pools with each being a 25m x 4 lane pool. This unavailable supply are pools located on education sites which are not available for community use and some local authority leisure centre pools which do nave opening hours for all the weekly peak period.

- There is therefore considerable scope to meet the unmet demand for pools by increasing access and the hours for community use to pools which already exist.

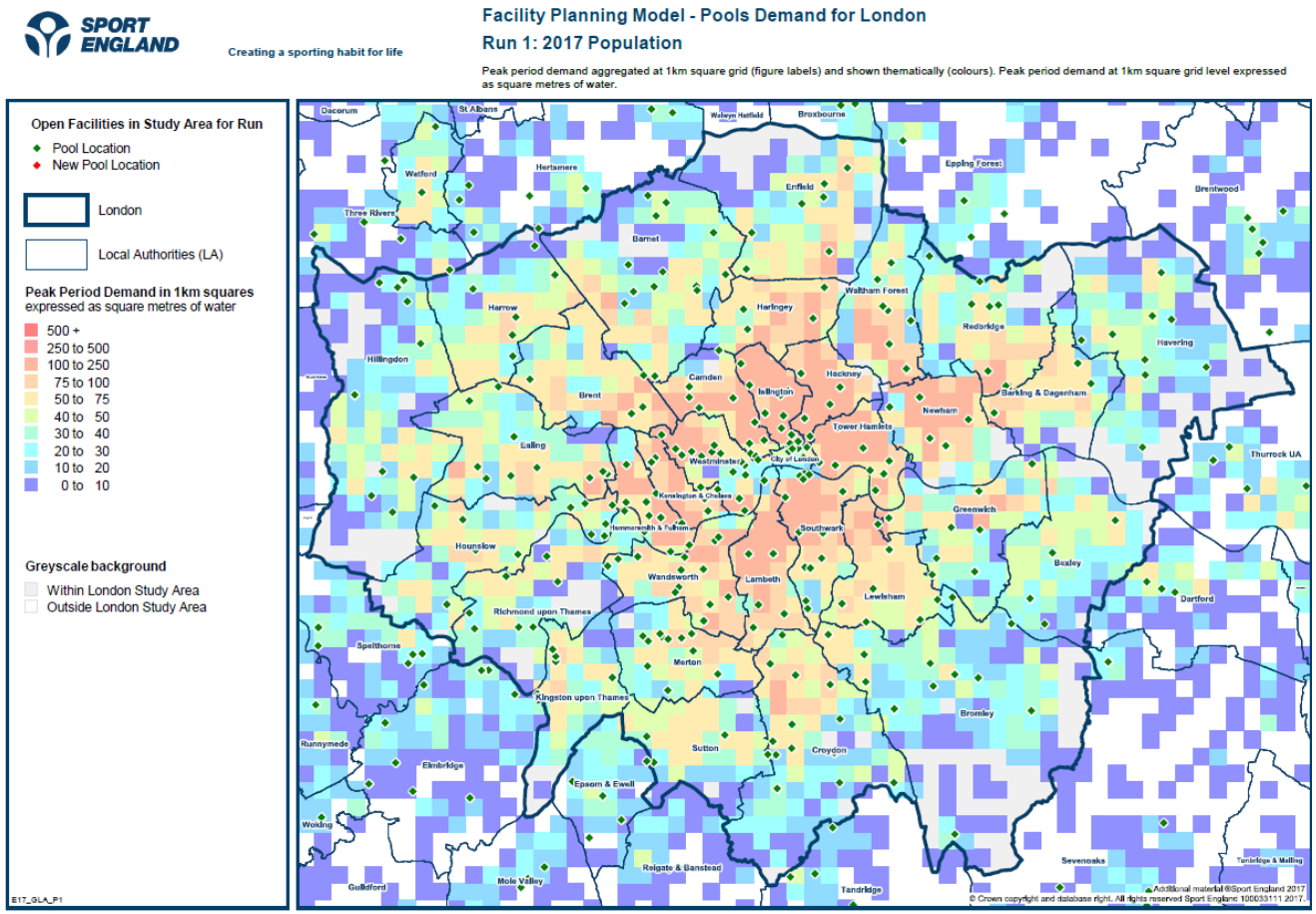
- The majority of unmet demand is from definition 2: demand located outside the catchment area of a swimming pool. This represents 77% of total unmet demand in 2017 and 58% in 2041. Of these totals some 72% of the total unmet demand is from residents who do not have access to a car in 2017 and it is 55% of unmet demand in 2041, notably Barking and Dagenham, Haringey, Newham and Waltham Forest. This highlights the importance of ensuring that facilities are accessible by public transport, walking and cycling.

- The scale and location of unmet demand for pools (from both sources) for both 2017 and 2041 are set out in Maps 3.3 and Map 3.4. The amount of unmet demand is expressed in sq metres of water in one kilometre grid squares. The values of unmet demand are colour coded and the key is on the left hand side of the map. Unmet demand progresses through blue squares, (0 – 2 sq metres of water), green squares (2 – 5 sq metres of water), then four shades of pink squares (5 – 50 sq metres of water). The highest value squares are shaded darkest pink and have a value of 25 – 50 sq metres of water.

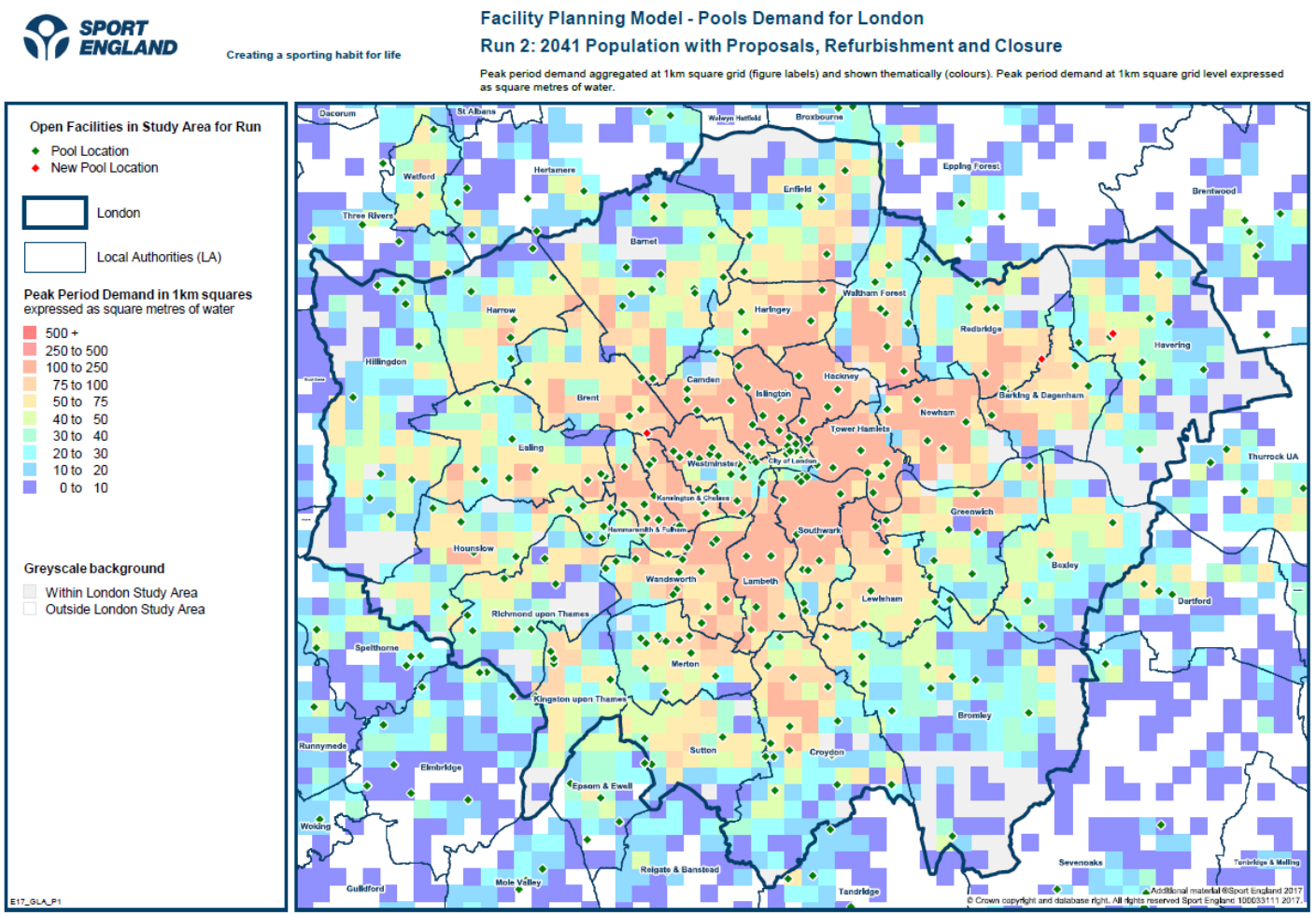
- Whist the amount of unmet demand does increase significantly between 2017 and 2041, the distribution does not change much as the two maps illustrate. By 2041 there is a bigger concentration of unmet demand in the centre and east of London.

- The highest amounts of unmet demand in 2017 are located in the London boroughs of Barking and Dagenham, Haringey, Brent, Newham, Southwark/Lambeth and Waltham Forest. In 2041 there is a bigger and concentred area of unmet demand across the same boroughs of Barking and Dagenham, Haringey, Brent, Newham Southwark/Lambeth and Waltham Forest but now also including Hackney and Tower Hamlets.

Map 3.3 Unmet demand for swimming London 2017



Map 3.4 Unmet demand for swimming London 2041



3.26 The distribution of unmet demand for swimming for the Boroughs with the highest and lowest levels of unmet demand and expressed in sq metres of water, for both years is set out in Table 3.9. As with other findings the variations between the highest and lowest Boroughs is quite marked with it being highest in Brent at 539 sq metres of water and lowest in Merton at 83 sq metres of water.

Table 3.9: Unmet demand for swimming pools for London Boroughs 2017 and 2041

Equivalent in Water space m2 - with comfort factor	RUN 1	RUN 2
London	**2017**	**2041**
Barking & Dagenham	392.9	678.2
Brent	539.1	681.1
Enfield	319.7	419.3
Hammersmith & Fulham	83.4	128.0
Haringey	441.4	626.2
Kensington & Chelsea	60.7	88.9
Merton	82.8	95.0
Newham	425.4	842.0
Richmond upon Thames	66.6	69.9
Westminster	79.0	126.1

AVAILABILTY (USED CAPACITY – how full are the pools?)

Table 3.10: Used Capacity of swimming pools London Boroughs 2017 and 2041

LONDON TOTAL	RUN 1	RUN 2
Used Capacity	**2017**	**2041**
Total number of visits used of current capacity (visits per week peak period)	544,550.	613,849.
% of overall capacity of pools used	74.1	82.5
% of visits made to pools by walking	28.4	27.4
% of visits made to pools by road	71.6	72.6
Visits Imported;		
Number of visits imported (visits per week peak period	16,366.	17,998.
As a % of used capacity	3.	2.9
Visits Retained:		
Number of Visits retained (visits per week peak period	528,184.	595,851.
As a % of used capacity	97.	97.1

3.27 Definition of used capacity – is a measure of how full the pools are estimated to be and is also a measure of the level of imported demand. The imported demand refers to where the nearest pool for a resident in (say) Bromley is a pool in (say) Croydon If the Bromley resident travels to the nearest pool to where they live in Croydon, then this becomes part of the used capacity of the Croydon pool.

3.28 The travel patterns to pools are by walking (up to 20 minutes/1 mile) and by road, this includes by car (up to 20 minutes travel time) and by public transport by road (up to 15 minutes travel time). Road travel does not include by underground or other train travel. It does not include road travel by cycling.

3.29 Sport England sets a comfort factor for pools being comfortably full and this is 70% of the total pool capacity used. Beyond this 70% level, the pool itself becomes too full and detracts from the ability to swim and the enjoyment. Also the changing and circulation areas become over full.

3.30 The summary of findings on used capacity are:

- In 2017 the London average for pool capacity used is 74% in the weekly peak period. This is projected to increase to 82.5% in 2041. So both figures are over the Sport England pools full comfort level of 70% of pool capacity used at peak times. The reason for the pools as an average across London being so full is because demand is greater than supply in both years, plus the impact of the increase in demand from swimming from population growth.

- These are large scale projections and over a very long time period. Undoubtedly the supply position could be very different and there could be a further increase in the supply of pools, plus more access to the current unavailable supply of pools.

- On the demand side the rate of swimming participation could change. As measured by the Sport England Active People survey and based on the benchmark measure of at least once a week participation, the London participation rate has decreased from 7.4% of all adults swimming at least once a week in 2005-06 to 5.7% of adults swimming at least once a week in 2015-16. Swimming does however remain the most popular participatory sport and activity and will become of increasing importance in terms of creating an active and healthy lifestyle by residents.

3.31 The findings on the level of used capacity for the London Boroughs with the highest and lowest estimated used capacity is set out in Table 3.13. The used capacity of individual pools does vary from the Borough wide average and the Borough average can be misleading when looking at what is happening at the individual pool sites in the Borough. In a more detailed study, it would be important to look at the data for each pool site. In a London wide study this is not possible, given there are 274 sites and 400 individual pools. So the reasons for variations in pool used capacity are set out as a guide.

- Enfield has the highest estimated used capacity at 96% of the pool capacity estimated to be used at peak times. It is lowest in Bromley at 49% and so there is considerable variation between the highest and lowest Boroughs.

- There are several reasons as to why the used capacity can vary, these are:

- The amount of demand located in the catchment area of a pool will vary and impact on the usage of any particular pool site. Also if there are several pools with extensive overlapping catchment areas the total demand is shared between several pools, often not located in the same local authority. In these instances the pool capacity used will be lower than the borough average.

- If a pool site has few or no competing pools in its catchment, it can then retain more demand than where there are competing pools.

- The age of the pool: older pools have less appeal, especially if customers are maybe accustomed to more modern pools which provide modern changing accommodation and have other features such as a health suite. So there can be a draw to more modern pools and having higher usage. Recent research has identified that customers are prepared to travel a bit further, if they can access a modern swimming pool.

- Most important is the size of the pool site. A pool of say 25m x 8 lanes and 420 sq metres of water could have a lower used capacity in percentage terms (say 50%) than a 25m x 4 lane pool 210 – 250 sq metres of water, (say 65%). However the larger pool can accommodate a much higher level of use because of its size. So the size of the pool and the total water area are very important when considering used capacities across pool sites - not just comparing the percentage figures. This is most important in terms of the Bromley findings. Bromley has the highest number of swimming pool sites in London and so it has a lot of capacity. So 49% of its pool capacity used is much bigger in terms of usage and visits, than an authority with fewer pools and capacity but a higher percentage figure.

- The type of use and access to a pool. Commercial swimming pools provide for recreational swimming by the centre membership. The level of pool capacity used reflects this type of use and nearly always, the used capacity of commercial pools is lower than the used capacity for public leisure centre swimming pools. The latter provide for all types of swimming activity of: learn to swim; public recreational swimming; lane and fitness swimming activities; and swimming development through clubs. They are also accessible on a pay and swim basis for everyone and have the longest opening hours of pools. For all these reasons they attract a higher level of usage than commercial pools and the used capacity of public leisure centres are usually very high.

3.32 Table 3.11 sets out the highest and lowest levels of used capacity for London Boroughs in 2017 and 2041. The Boroughs with the highest used capacity are in green and those with the lowest in pin.

Table 3.11: Used capacity of swimming pools for each London Borough 2017 and 2041

% of overall capacity of pools used	RUN 1	RUN 2
London average	**2017**	**2041**
Bromley	49.7	61.5
Enfield	96.0	97.8
Hackney	93.6	100.0
Hammersmith & Fulham	54.6	60.5
Hounslow	59.0	72.0
Lewisham	93.1	99.6
Newham	92.7	100.0
Redbridge	92.6	97.3
Richmond upon Thames	53.9	56.3
Westminster	52.3	65.6

- Imported demand is measured under used capacity because if the nearest pool for a resident in authority A is a pool in authority B, and they use the nearest pool to where they live, then this becomes part of the used capacity of pools in authority B.

- The imported demand between each London Borough does vary considerably. The boroughs with high imported demand, reflect that the pool locations and catchment area of pools in their borough overlap extensively pools in neighbouring authorities. The findings for those authorities with the highest and lowest levels of imported demand are set out in Table 3.12.

Table 3.12: Imported demand as a percentage of used capacity of swimming pools London Boroughs 2017 and 2041

Visits Imported; As a % of used capacity	RUN 1	RUN 2
London average	**2017**	**2041**
Bexley	28.9	30.7
Croydon	27.8	28.5
Enfield	29.1	30.4
Hackney	48.8	46.6
Hammersmith & Fulham	53.7	53.8
Havering	28.5	36.0
Hounslow	51.3	51.7
Kensington & Chelsea	56.8	58.5
Newham	51.1	47.6
Southwark	31.4	30.6

LOCAL SHARE

Table 3.13: Local Share of swimming pools for London Boroughs 2017 and 2041

LONDON TOTAL	RUN 1	RUN 2
Local Share	**2017**	**2041**
Local Share: <1 capacity less than demand, >1 capacity greater than demand	1.	0.4
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	90.9	89.1
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	-9.1	-10.9

3.33 Local share has quite a complicated definition - it helps to show which areas have a better or worse share of swimming pools. It takes into account the size and availability of swimming pools as well as travel modes. Local share is useful at looking at 'equity' of provision and is a useful guide in making interventions to try and improve access for residents in the areas who have the least share of pools.

3.34 Local Share is the available capacity that can be reached in an area divided by the demand for that capacity in the area. A value of 1 means that the level of supply just matches demand, while a value of less than 1 indicates a shortage of supply and a value greater than 1 indicates a surplus.

3.35 The score of 1 is set as the England wide average for local share. So if a Borough has a local share below 1, not only is there a shortage of supply, it can be compared to how this differs from the England wide average. For example in 2017 the London average local share is 1 and so supply is equal to demand across London. Compared to the England wide then London local share is 90.9 of the England wide figure. So London has a shortage of supply when compared to England wide of 9.1 and this increases to 10.9 in 2041.

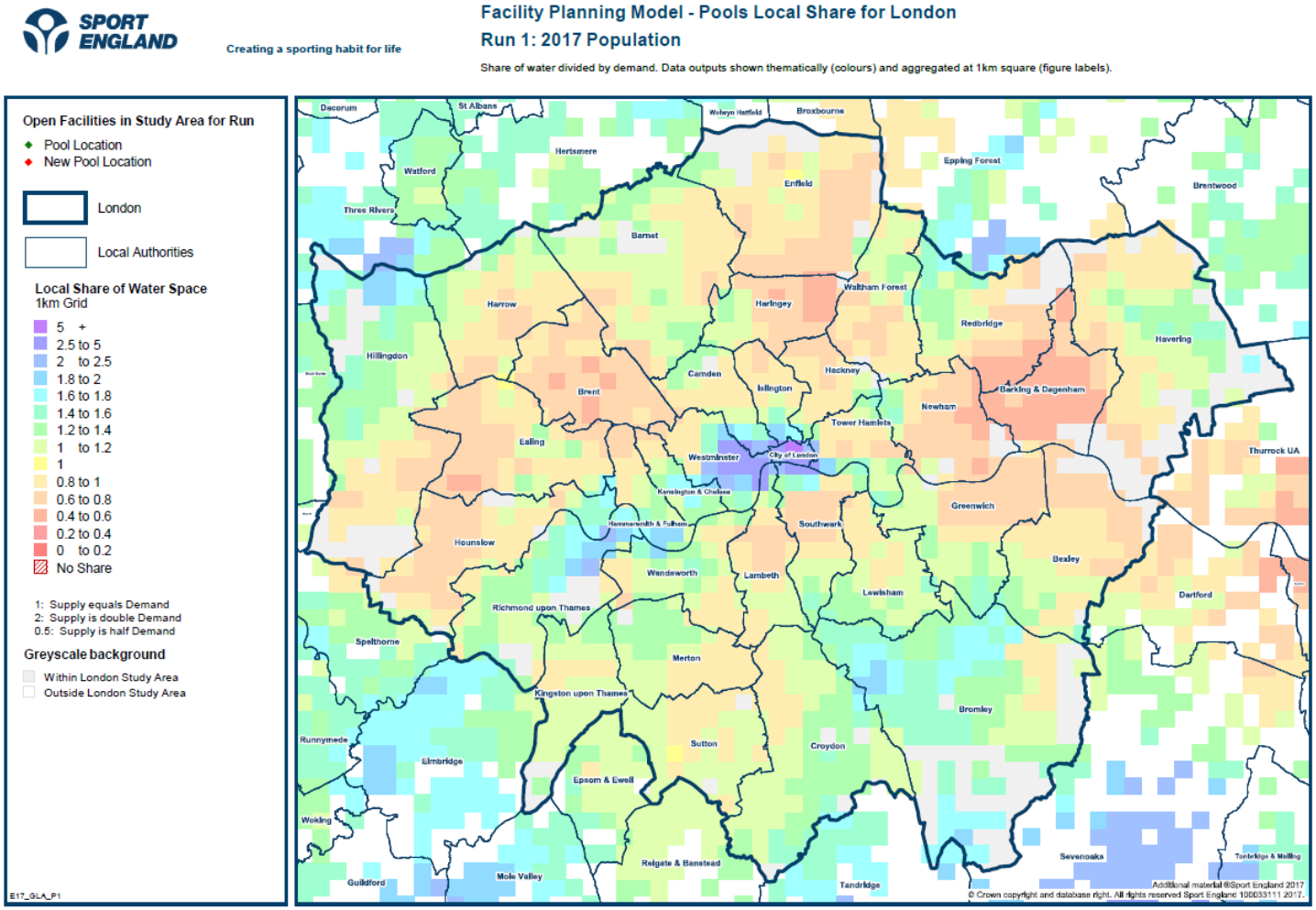
3.36 The Boroughs with the highest and lowest local share is set out in Table 3.14 For four Boroughs there is a local share above 100 and so supply is greater than demand in terms of local share of pools, it is 127 in Richmond, 124 in Westminster,117 in Kensington and Chelsea and 115 in Hammersmith and Fulham. Local share is lowest in Barking and Dagenham at just below 51, just below 65 in Brent, then 68 in Haringey and 70 in Newham. So as with other findings there is a considerable variation in the findings between the highest and lowest Boroughs.

Table 3.14: Local Share of pools London Boroughs 2017 and 2041

Local Share with 100 = FPM Total for England)	RUN 1	RUN 2
London average	**2017**	**2041**
Barking & Dagenham	50.9	67.4
Brent	64.5	71.7
Bromley	126.4	123.9
Hammersmith & Fulham	115.5	115.2
Haringey	68.2	58.7
Kensington & Chelsea	117.3	117.4
Newham	70.0	73.9
Richmond upon Thames	127.3	128.3
Westminster	124.5	121.7

3.37 The distribution of local share is also set out in Map 3.5 overleaf. It reflects the findings in Table 3.16 that local share for the boroughs in green is higher than 1 and supply is greater than demand. Also that more generally, local share is highest in the boroughs on the periphery of London. Finally that local share does vary within each borough and there are areas in almost all boroughs that have values above 1 as well as below in 2017. Areas below a value of 1 are shaded beige and pink, whilst areas with a value above 1 are shaded green and blue. The map for 2041 is not included because as Table 3.16 shows the values for each borough do not change much between 2017 and 2041.

Map 3.5: Local share of swimming pools London 2017



3.38 This ends the reporting of the full findings from the assessment of London swimming pools provision 2017 – 2041. The key findings are set out in the Executive Summary.

Appendix 1: GLA Study on Swimming Pools: Table of Findings for all London Boroughs 2017 and 2041

(Note the Table number refers to the table entry in the main report)

Table 3.2: Number of swimming pools for each London Boroughs 2017 and 2041

Number of pools	RUN 1	RUN 2
London average	2017	2041
Barking & Dagenham	5.0	5.0
Barnet	18.0	18.0
Bexley	7.0	7.0
Brent	6.0	8.0
Bromley	22.0	22.0
Camden	14.0	14.0
City of London	7.0	7.0
Croydon	19.0	19.0
Ealing	15.0	15.0
Enfield	10.0	10.0
Greenwich	13.0	13.0
Hackney	9.0	9.0
Hammersmith & Fulham	18.0	18.0
Haringey	8.0	8.0
Harrow	8.0	8.0
Havering	12.0	14.0
Hillingdon	14.0	14.0
Hounslow	18.0	18.0
Islington	12.0	12.0
Kensington & Chelsea	10.0	10.0
Kingston upon Thames	7.0	7.0
Lambeth	10.0	10.0

Number of pools	RUN 1	RUN 2
London average	2017	2041
Lewisham	11.0	11.0
Merton	15.0	15.0
Newham	11.0	11.0
Redbridge	8.0	9.0
Richmond upon Thames	11.0	11.0
Southwark	16.0	16.0
Sutton	6.0	6.0
Tower Hamlets	12.0	12.0
Waltham Forest	13.0	13.0
Wandsworth	16.0	16.0
Westminster	19.0	18.0

Table 3.3: Pools per 1,000 population for each London Boroughs 2017 and 2041

Water space per 1,000 population	RUN 1	RUN 2
London average	2017	2041
Barking & Dagenham	6.0	4.3
Barnet	10.5	8.3
Bexley	6.8	6.2
Brent	3.7	4.2
Bromley	19.9	18.0
Camden	14.6	12.3
City of London	168.5	133.4
Croydon	10.7	9.0
Ealing	10.2	8.7
Enfield	7.8	6.9

Water space per 1,000 population	RUN 1	RUN 2
London average	**2017**	**2041**
Greenwich	11.4	8.6
Hackney	11.2	8.7
Hammersmith & Fulham	20.3	16.8
Haringey	6.8	5.7
Harrow	9.0	7.9
Havering	10.2	10.6
Hillingdon	13.4	12.2
Hounslow	14.8	12.8
Islington	13.4	11.1
Kensington & Chelsea	10.4	9.0
Kingston upon Thames	7.3	6.1
Lambeth	6.8	5.3
Lewisham	9.1	7.6
Merton	14.6	13.1
Newham	13.7	10.1
Redbridge	5.8	5.8
Richmond upon Thames	12.1	11.1
Southwark	12.1	9.3
Sutton	6.5	5.9
Tower Hamlets	9.1	6.4
Waltham Forest	10.3	8.8
Wandsworth	12.1	9.8
Westminster	17.3	13.3

% of total demand satisfied	RUN 1	RUN 2
London average	**2017**	**2041**
Barking & Dagenham	83.7	79.6
Barnet	92.5	90.6
Bexley	92.3	90.1
Brent	85.5	83.4
Bromley	94.8	94.6
Camden	95.9	94.2
City of London	97.9	96.8
Croydon	95.2	94.1
Ealing	92.7	91.1
Enfield	91.4	89.5
Greenwich	92.8	88.9
Hackney	92.6	87.2
Hammersmith & Fulham	96.0	94.7
Haringey	85.9	82.6
Harrow	94.4	94.0
Havering	93.8	93.9
Hillingdon	91.0	90.0
Hounslow	92.1	91.3
Islington	96.0	93.5
Kensington & Chelsea	96.5	95.3
Kingston upon Thames	95.1	94.9
Lambeth	92.6	89.1
Lewisham	94.4	90.9
Merton	96.4	96.2
Newham	89.2	83.6

% of total demand satisfied	RUN 1	RUN 2
London average	2017	2041
Redbridge	91.2	89.7
Richmond upon Thames	96.9	96.9
Southwark	93.3	89.4
Sutton	94.7	94.3
Tower Hamlets	95.0	89.6
Waltham Forest	90.3	87.1
Wandsworth	96.7	95.8
Westminster	97.0	95.8

Table 3.7: Percentage of visits to pitches by walking for each London Boroughs 2017 and 2041

% of demand satisfied who travelled by foot	RUN 1	RUN 2
London average	2017	2041
Barking & Dagenham	14.9	15.8
Barnet	12.9	11.5
Bexley	9.4	8.2
Brent	15.4	14.2
Bromley	15.7	15.4
Camden	53.9	52.7
City of London	70.4	69.4
Croydon	23.9	22.0
Ealing	20.3	19.1
Enfield	17.6	16.3
Greenwich	26.6	24.0
Hackney	46.9	42.4
Hammersmith & Fulham	47.6	46.4

% of demand satisfied who travelled by foot	RUN 1	RUN 2
London average	2017	2041
Haringey	25.1	24.0
Harrow	12.3	12.3
Havering	13.7	15.4
Hillingdon	8.8	8.3
Hounslow	17.2	16.7
Islington	56.2	53.4
Kensington & Chelsea	48.1	46.4
Kingston upon Thames	17.4	17.7
Lambeth	39.4	36.3
Lewisham	33.9	30.6
Merton	27.0	26.8
Newham	31.1	28.8
Redbridge	14.4	14.9
Richmond upon Thames	20.6	20.4
Southwark	43.6	40.7
Sutton	11.4	11.0
Tower Hamlets	51.3	46.0
Waltham Forest	25.8	24.5
Wandsworth	40.1	39.2
Westminster	60.8	58.5

Equivalent in Water space m2 - with comfort factor	RUN 1	RUN 2
London	**2017**	**2041**
Barking & Dagenham	392.9	678.2
Barnet	323.3	480.3
Bexley	204.1	277.9
Brent	539.1	681.1
Bromley	184.4	203.0
Camden	109.5	176.6
City of London	2.0	3.6
Croydon	205.3	292.5
Ealing	287.4	392.0
Enfield	319.7	419.3
Greenwich	226.2	447.7
Hackney	235.3	510.2
Hammersmith & Fulham	83.4	128.0
Haringey	441.4	626.2
Harrow	155.2	178.9
Havering	169.9	187.9
Hillingdon	298.6	351.6
Hounslow	242.4	294.5
Islington	105.0	196.6
Kensington & Chelsea	60.7	88.9
Kingston upon Thames	95.9	112.0
Lambeth	274.8	501.9
Lewisham	191.5	359.9
Merton	82.8	95.0
Newham	425.4	842.0

Equivalent in Water space m2 - with comfort factor	RUN 1	RUN 2
London	**2017**	**2041**
Redbridge	300.5	399.7
Richmond upon Thames	66.6	69.9
Southwark	240.3	474.4
Sutton	118.8	135.3
Tower Hamlets	175.9	500.1
Waltham Forest	301.4	458.4
Wandsworth	120.3	183.2
Westminster	79.0	126.1

Table 3.11: Used capacity of swimming pools for each London Borough 2017 and 2041

% of overall capacity of pools used	RUN 1	RUN 2
London average	**2017**	**2041**
Barking & Dagenham	90.9	92.1
Barnet	76.7	89.8
Bexley	89.0	90.9
Brent	89.9	96.1
Bromley	49.7	61.5
Camden	72.5	80.5
City of London	22.3	38.5
Croydon	75.6	87.0
Ealing	79.0	84.7
Enfield	96.0	97.8
Greenwich	88.9	96.8
Hackney	93.6	100.0

% of overall capacity of pools used	RUN 1	RUN 2
London average	**2017**	**2041**
Hammersmith & Fulham	54.6	60.5
Haringey	89.6	92.6
Harrow	83.2	96.2
Havering	88.7	93.4
Hillingdon	68.0	74.8
Hounslow	59.0	72.0
Islington	72.3	75.9
Kensington & Chelsea	75.8	79.2
Kingston upon Thames	78.3	91.1
Lambeth	88.2	91.7
Lewisham	93.1	99.6
Merton	65.1	79.0
Newham	92.7	100.0
Redbridge	92.6	97.3
Richmond upon Thames	53.9	56.3
Southwark	73.8	80.4
Sutton	84.1	75.0
Tower Hamlets	81.1	90.2
Waltham Forest	76.6	88.1
Wandsworth	70.2	84.5
Westminster	52.3	65.6

Table 3.12: Visits imported as a percentage of used capacity of swimming pools for each London Borough 2017 and 2041

Visits Imported; As a % of used capacity	RUN 1	RUN 2
London average	2017	2041
Barking & Dagenham	39.4	37.2
Barnet	31.2	32.0
Bexley	28.9	30.7
Brent	33.7	42.2
Bromley	43.8	48.8
Camden	44.3	45.8
City of London	89.5	92.0
Croydon	27.8	28.5
Ealing	42.8	43.1
Enfield	29.1	30.4
Greenwich	44.4	40.8
Hackney	48.8	46.6
Hammersmith & Fulham	53.7	53.8
Haringey	39.4	37.7
Harrow	38.7	41.9
Havering	28.5	36.0
Hillingdon	39.6	41.8
Hounslow	51.3	51.7
Islington	50.4	49.6
Kensington & Chelsea	56.8	58.5
Kingston upon Thames	36.9	36.0
Lambeth	34.3	32.8
Lewisham	41.7	43.2
Merton	44.9	47.9
Newham	51.1	47.6

Visits Imported; As a % of used capacity	RUN 1	RUN 2
London average	2017	2041
Redbridge	32.0	38.6
Richmond upon Thames	42.1	44.9
Southwark	31.4	30.6
Sutton	37.8	38.0
Tower Hamlets	33.5	29.8
Waltham Forest	41.0	43.4
Wandsworth	36.0	36.0
Westminster	41.2	44.6

Appendix 2: Swimming Pools included in the assessment 2017

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
Barking and Dagenham							**91%**	**9%**	**66%**	**14%**	**20%**
ABBEY LEISURE CENTRE	Main/General	313	52.0	2016		P	100%	0%	51%	13%	36%
ABBEY LEISURE CENTRE	Learner/Teaching/Training	63	52.0								
BECONTREE HEATH LEISURE CENTRE	Main/General	625	52.0	2011		P	100%	0%	72%	15%	12%
BECONTREE HEATH LEISURE CENTRE	Learner/Teaching/Training	91	52.0								
GOLDS GYM (DAGENHAM)	Main/General	168	51.0	1999		C	31%	69%	87%	10%	4%
Barnet							**77%**	**23%**	**72%**	**14%**	**14%**
BARNET COPTHALL LEISURE CENTRE	Main/General	450	49.5	1976	2007	P	98%	2%	78%	19%	3%
BARNET COPTHALL LEISURE CENTRE	Main/General	300	32.8								
BARNET COPTHALL LEISURE CENTRE	Diving	156	35.5								
CHURCH FARM LEISURE CENTRE	Main/General	162	49.5	1960	1969	P	72%	28%	53%	8%	39%
DAVID LLOYD CLUB (FINCHLEY)	Main/General	200	52.0	1989	2002	C	59%	41%	71%	10%	20%
FINCHLEY LIDO LEISURE CENTRE	Main/General	325	45.5	1996		P	100%	0%	68%	16%	15%
FINCHLEY LIDO LEISURE CENTRE	Leisure Pool	150	31.8								
FRITH MANOR PRIMARY SCHOOL	Main/General	160	47.0	2014		P	100%	0%	74%	15%	11%
LABORATORY SPA & HEALTH CLUB (MILL HILL)	Main/General	300	52.0	1998		C	55%	45%	78%	11%	11%
MILL HILL SCHOOL SPORTS CENTRE	Main/General	313	7.0	2005		P	100%	0%	74%	15%	11%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
NUFFIELD HEALTH FRIERN BARNET FITNESS & WELLBEING GYM	Main/General	200	51.0	2001		C	55%	45%	75%	9%	16%
QUEEN ELIZABETH SPORTS CENTRE	Main/General	187	32.0	1965		P	61%	39%	51%	6%	43%
QUEEN ELIZABETHS SCHOOL	Main/General	425	23.5	2007		P	90%	10%	75%	9%	16%
UNDERHILL JUNIOR SCHOOL	Main/General	154	20.0	1965		P	51%	49%	47%	6%	47%
VIRGIN ACTIVE CLUB (CRICKLEWOOD)	Main/General	250	51.5	2000	2007	C	53%	47%	67%	12%	21%
VIRGIN ACTIVE CLUB (CRICKLEWOOD)	Learner/Teaching/Training	96	51.5								
VIRGIN ACTIVE CLUB (MILL HILL)	Main/General	160	51.0	2005		C	60%	40%	73%	10%	17%
VIRGIN ACTIVE CLUB (MILL HILL)	Learner/Teaching/Training	88	51.0								
Bexley							**89%**	**11%**	**79%**	**11%**	**10%**
CROOK LOG LEISURE CENTRE	Main/General	400	52.0	2005		P	100%	0%	80%	12%	9%
CROOK LOG LEISURE CENTRE	Learner/Teaching/Training	200	49.5								
DAVID LLOYD CLUB (SIDCUP)	Main/General	275	52.0	1996		C	34%	66%	89%	7%	4%
ERITH LEISURE CENTRE	Main/General	300	52.0	2005		P	100%	0%	74%	12%	14%
ERITH LEISURE CENTRE	Learner/Teaching/Training	84	52.0								
SIDCUP LEISURE CENTRE	Main/General	300	52.0	2008		P	100%	0%	79%	11%	10%
SIDCUP LEISURE CENTRE	Learner/Teaching/Training	96	52.0								
Brent				**1999**			**90%**	**10%**	**59%**	**16%**	**25%**
MANOR HEALTH & LEISURE CLUB (CRICKLEWOOD)	Main/General	216	52.0	2006		C	42%	58%	75%	14%	12%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
NUFFIELD HEALTH (BRONDESBURY PARK)	Main/General	160	52.0	2002	2010	P	100%	0%	44%	16%	40%
VALE FARM SPORTS CENTRE	Main/General	300	52.0	1981	2005	P	100%	0%	70%	15%	15%
VALE FARM SPORTS CENTRE	Learner/Teaching/Training	130	52.0								
WILLESDEN SPORTS CENTRE	Main/General	300	52.0	2006		P	100%	0%	50%	18%	32%
WILLESDEN SPORTS CENTRE	Learner/Teaching/Training	130	51.5								
Bromley							**50%**	**50%**	**73%**	**12%**	**15%**
BANNATYNES HEALTH CLUB (GROVE PARK)	Main/General	160	52.0	2002		C	22%	78%	78%	10%	13%
BIGGIN HILL MEMORIAL LIBRARY AND POOL	Main/General	325	48.5	2010		P	54%	46%	85%	5%	10%
BROMLEY HIGH SCHOOL	Main/General	375	17.5	1990		P	56%	44%	76%	9%	15%
CRYSTAL PALACE NATIONAL SPORTS CENTRE	Main/General	1100	49.5	1964	2009	P	49%	51%	68%	17%	15%
CRYSTAL PALACE NATIONAL SPORTS CENTRE	Main/General	313	49.5								
CRYSTAL PALACE NATIONAL SPORTS CENTRE	Main/General	128	49.5								
CRYSTAL PALACE NATIONAL SPORTS CENTRE	Diving	400	49.5								
DAVID LLOYD CLUB (BECKENHAM)	Main/General	250	52.0	2001	2016	C	31%	69%	77%	6%	16%
DAVID LLOYD CLUB (BECKENHAM)	Learner/Teaching/Training	60	52.0								
ERIC LIDDELL SPORTS CENTRE	Main/General	313	52.0	1996	2003	P	72%	28%	69%	15%	16%
NUFFIELD HEALTH (BROMLEY)	Main/General	200	52.0	1998	2010	P	67%	33%	82%	9%	9%
NUFFIELD HEALTH (BROMLEY)	Learner/Teaching/Training	50	52.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
NUFFIELD HEALTH (CHISLEHURST)	Main/General	250	52.0	2000		C	22%	78%	84%	9%	8%
PAVILION LEISURE CENTRE (BROMLEY)	Leisure Pool	360	52.0	1992	2004	P	73%	27%	71%	10%	20%
THE SPA AT BECKENHAM	Main/General	450	50.8	1998		P	49%	51%	68%	13%	20%
THE SPA AT BECKENHAM	Learner/Teaching/Training	200	46.0								
VIRGIN ACTIVE CLUB (BROMLEY)	Main/General	250	52.0	2000	2015	C	50%	50%	76%	5%	19%
VIRGIN ACTIVE CLUB (BROMLEY)	Learner/Teaching/Training	100	52.0								
WALNUTS LEISURE CENTRE	Main/General	495	50.0	1980		P	57%	43%	81%	8%	11%
WALNUTS LEISURE CENTRE	Learner/Teaching/Training	93	41.0								
WEST WICKHAM LEISURE CENTRE	Main/General	500	52.0	1967	2003	P	35%	65%	75%	9%	16%
WEST WICKHAM LEISURE CENTRE	Learner/Teaching/Training	165	10.5								
Camden							**73%**	**27%**	**38%**	**13%**	**49%**
CENTRAL YMCA CLUB	Main/General	450	52.0	1976	2009	P	35%	65%	27%	9%	64%
ENERGY BASE	Main/General	396	29.5	1952	2012	P	61%	39%	24%	9%	67%
KENTISH TOWN SPORTS CENTRE	Main/General	336	44.5	1901	2010	P	100%	0%	40%	15%	46%
KENTISH TOWN SPORTS CENTRE	Learner/Teaching/Training	250	52.0								
KENTISH TOWN SPORTS CENTRE	Learner/Teaching/Training	63	52.0								
NUFFIELD HEALTH (BLOOMSBURY)	Main/General	168	49.0	1993	2013	P	84%	16%	22%	8%	69%
OASIS SPORTS CENTRE	Main/General	225	46.0	1955	2004	P	21%	79%	26%	9%	64%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
OASIS SPORTS CENTRE	Lido	270	46.0								
PANCRAS SQUARE LEISURE	Main/General	255	40.0	2014	2016	P	100%	0%	40%	16%	45%
PANCRAS SQUARE LEISURE	Learner/Teaching/Training	35	40.0								
SWISS COTTAGE LEISURE CENTRE	Main/General	438	49.5	2006		P	100%	0%	43%	15%	42%
SWISS COTTAGE LEISURE CENTRE	Learner/Teaching/Training	200	21.0								
UCS ACTIVE	Main/General	265	34.5	2007		P	100%	0%	48%	16%	36%
VIRGIN ACTIVE CLUB (SWISS COTTAGE)	Main/General	200	52.0	1998	2010	C	67%	33%	45%	9%	46%
City of London							**22%**	**78%**	**38%**	**15%**	**47%**
CITY OF LONDON SCHOOL FOR GIRLS	Main/General	177	29.5	1972	2004	P	23%	77%	41%	18%	41%
GOLDEN LANE SPORTS & FITNESS	Main/General	160	49.8	1963	2012	P	61%	39%	33%	14%	53%
NUFFIELD HEALTH (MOORGATE)	Main/General	200	52.0	2001	2006	P	66%	34%	39%	17%	45%
VIRGIN ACTIVE CLASSIC (200 ALDERSGATE)	Main/General	160	50.0	2012		C	8%	92%	35%	7%	58%
VIRGIN ACTIVE CLASSIC (BANK HEALTH CLUB)	Main/General	170	50.0	2006	2014	C	7%	93%	44%	10%	46%
VIRGIN ACTIVE CLASSIC (BROADGATE HEALTH CLUB)	Main/General	450	50.0	1989	2002	C	6%	94%	56%	13%	31%
VIRGIN ACTIVE CLUB (BARBICAN)	Main/General	175	52.0	1992		C	6%	94%	32%	7%	61%
Croydon							**76%**	**24%**	**63%**	**12%**	**26%**
CROYDON SPORTS CLUB	Main/General	210	39.5	2000	2004	P	76%	24%	74%	8%	18%
NEW ADDINGTON LEISURE CENTRE	Main/General	300	49.8	1963		P	28%	72%	45%	7%	48%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
NEW ADDINGTON LEISURE CENTRE	Learner/Teaching/Training	63	49.8								
NUFFIELD HEALTH (CROYDON)	Main/General	200	52.0	2000		P	82%	18%	80%	13%	8%
NUFFIELD HEALTH (NORBURY)	Main/General	200	52.0	1993	2002	P	100%	0%	52%	13%	36%
NUFFIELD HEALTH CROYDON CENTRAL FITNESS & WELLBEING GYM	Main/General	160	52.0	2002	2007	C	34%	66%	75%	8%	18%
PURLEY LEISURE CENTRE	Main/General	325	42.3	1982		P	60%	40%	71%	8%	21%
PURLEY LEISURE CENTRE	Learner/Teaching/Training	84	36.8								
ROYAL RUSSELL SCHOOL	Main/General	213	34.5	1995		P	44%	56%	83%	14%	2%
ROYAL RUSSELL SCHOOL	Learner/Teaching/Training	64	34.5								
SOUTH NORWOOD LEISURE CENTRE	Main/General	313	52.0	2007		P	98%	2%	57%	13%	30%
SOUTH NORWOOD LEISURE CENTRE	Learner/Teaching/Training	63	52.0								
ST JOSEPHS COLLEGE	Main/General	313	39.5	1904	2003	P	43%	57%	54%	14%	32%
THORNTON HEATH LEISURE CENTRE	Main/General	300	52.0	2004		P	100%	0%	41%	10%	49%
THORNTON HEATH LEISURE CENTRE	Learner/Teaching/Training	60	52.0								
TRINITY SPORTS CLUB	Main/General	450	34.5	1994	2007	P	76%	24%	71%	14%	15%
WADDON LEISURE CENTRE	Main/General	313	52.0	2013		P	100%	0%	72%	14%	15%
WADDON LEISURE CENTRE	Learner/Teaching/Training	219	52.0								
WHITGIFT SPORTS CENTRE	Main/General	300	34.0	2005		P	100%	0%	61%	12%	27%
Ealing							**79%**	**21%**	**67%**	**13%**	**19%**

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
ACTON CENTRE	Main/General	425	45.0	2014		P	100%	0%	53%	15%	33%
ACTON CENTRE	Learner/Teaching/Training	96	41.5								
DAVID LLOYD CLUB (SUDBURY HILL)	Main/General	300	52.0	1998	2004	C	61%	39%	81%	10%	9%
DAVID LLOYD CLUB (SUDBURY HILL)	Leisure Pool	110	52.0								
DORMERS WELLS LEISURE CENTRE	Main/General	240	39.5	1972		P	100%	0%	52%	11%	37%
EDEN FITNESS	Main/General	160	52.0	2007	2015	C	74%	26%	51%	7%	42%
EIGHTH LEVEL HEALTH & FITNESS	Main/General	183	52.0	1997	2008	P	100%	0%	66%	14%	20%
GOLDS GYM (HANWELL)	Main/General	120	52.0	1997	2003	C	61%	39%	53%	7%	40%
GURNELL LEISURE CENTRE	Main/General	750	49.0	1981		P	90%	10%	74%	17%	9%
GURNELL LEISURE CENTRE	Leisure Pool	213	49.0								
NORTHOLT LEISURE CENTRE	Main/General	425	52.0	2010		P	100%	0%	75%	13%	13%
NORTHOLT LEISURE CENTRE	Learner/Teaching/Training	72	52.0								
PARK CLUB ACTON	Main/General	160	52.0	2000	2011	C	25%	75%	72%	11%	17%
WEST LONDON HEALTH AND RACQUETS CLUB	Main/General	313	52.0	2002	2008	C	26%	74%	66%	10%	24%
WEST LONDON HEALTH AND RACQUETS CLUB	Leisure Pool	30	52.0								
Enfield							**96%**	**4%**	**68%**	**14%**	**19%**
ALBANY LEISURE CENTRE	Main/General	450	52.0	1990	2004	P	100%	0%	71%	13%	16%
ALBANY LEISURE CENTRE	Main/General	195	44.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
ARNOS POOL	Main/General	220	43.5	1935	2008	P	100%	0%	52%	13%	35%
DAVID LLOYD CLUB (ENFIELD)	Main/General	125	52.0	1991	2004	C	47%	53%	81%	7%	12%
EDMONTON LEISURE CENTRE	Main/General	338	52.0	2007		P	100%	0%	56%	15%	29%
EDMONTON LEISURE CENTRE	Learner/Teaching/Training	171	52.0								
NUFFIELD HEALTH ENFIELD FITNESS & WELLBEING GYM	Main/General	120	52.0	2000	2004	C	74%	26%	67%	7%	27%
SOUTHBURY LEISURE CENTRE	Main/General	425	41.5	2002		P	100%	0%	75%	15%	10%
SOUTHBURY LEISURE CENTRE	Main/General	120	41.5								
SOUTHGATE LEISURE CENTRE	Main/General	433	52.0	1965	2012	P	100%	0%	74%	13%	12%
Greenwich							**89%**	**11%**	**59%**	**16%**	**25%**
CHARLTON LIDO AND LIFESTYLE CLUB	Lido	210	24.0	1939	2012	P	100%	0%	28%	8%	63%
COLFE'S LEISURE CENTRE	Main/General	300	31.0	1992		P	90%	10%	58%	14%	28%
DAVID LLOYD CLUB (KIDBROOKE)	Main/General	200	52.0	1999		C	31%	69%	71%	11%	18%
ELTHAM CENTRE	Main/General	425	52.0	2007		P	88%	12%	75%	15%	10%
ELTHAM CENTRE	Learner/Teaching/Training	187	52.0								
ELTHAM CENTRE	Learner/Teaching/Training	38	52.0								
SHOOTERS HILL POST 16 CAMPUS	Main/General	160	39.5	1965	2007	P	100%	0%	46%	12%	42%
THAMESMERE LEISURE CENTRE	Main/General	325	49.5	1986		P	85%	15%	67%	18%	15%
THAMESMERE LEISURE CENTRE	Learner/Teaching/Training	144	49.5								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
THE GREENWICH CENTRE	Main/General	325	52.0	2015		P	100%	0%	51%	19%	29%
THE GREENWICH CENTRE	Main/General	200	52.0								
WATERFRONT LEISURE CENTRE	Main/General	325	50.0	1986		P	100%	0%	49%	16%	35%
WATERFRONT LEISURE CENTRE	Leisure Pool	364	27.5								
Hackney							**94%**	**6%**	**37%**	**17%**	**46%**
BRITANNIA LEISURE CENTRE	Leisure Pool	648	34.0	1980	2002	P	95%	5%	39%	17%	45%
BRITANNIA LEISURE CENTRE	Learner/Teaching/Training	104	34.0								
CLISSOLD LEISURE CENTRE	Main/General	425	50.0	2002	2007	P	100%	0%	37%	19%	44%
CLISSOLD LEISURE CENTRE	Main/General	325	38.5								
CLISSOLD LEISURE CENTRE	Learner/Teaching/Training	40	25.5								
KINGS HALL LEISURE CENTRE	Main/General	300	52.0	1903		P	63%	37%	29%	13%	58%
KINGS HALL LEISURE CENTRE	Learner/Teaching/Training	79	52.0								
LONDON FIELDS LIDO	Lido	850	47.0	2006		P	100%	0%	39%	17%	44%
NUFFIELD HEALTH (SHOREDITCH)	Main/General	313	52.0	2003		P	100%	0%	38%	17%	45%
Hammersmith and Fulham							**55%**	**45%**	**51%**	**12%**	**37%**
CHARING CROSS SPORTS CLUB	Main/General	250	52.0	1973	2014	P	100%	0%	47%	14%	39%
DAVID LLOYD CLUB (FULHAM)	Main/General	200	52.0	2002	2013	C	34%	66%	62%	8%	30%
DAVID LLOYD CLUB (FULHAM)	Learner/Teaching/Training	12	52.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
FULHAM POOLS	Main/General	375	51.5	2002		P	100%	0%	43%	13%	43%
FULHAM POOLS	Learner/Teaching/Training	77	51.5								
HARBOUR CLUB (CHELSEA)	Main/General	250	52.0	2007		C	24%	76%	69%	9%	22%
HARBOUR CLUB (CHELSEA)	Main/General	100	52.0								
HARBOUR CLUB (CHELSEA)	Leisure Pool	168	52.0								
HURLINGHAM CLUB	Main/General	300	52.0	1994		C	29%	71%	64%	8%	27%
LATYMER UPPER SCHOOL	Main/General	300	10.0	2016		P	100%	0%	32%	9%	59%
NUFFIELD HEALTH (FULHAM)	Main/General	160	52.0	2000		P	84%	16%	59%	17%	24%
PHOENIX FITNESS CENTRE & JANET ADEGOKE SWIMMING POOL	Main/General	300	48.0	2006		P	100%	0%	47%	15%	38%
PHOENIX FITNESS CENTRE & JANET ADEGOKE SWIMMING POOL	Learner/Teaching/Training	96	23.5								
THE CHELSEA CLUB	Main/General	250	52.0	2001		C	31%	69%	61%	8%	31%
THE PRINTWORKS HEALTH & SPA	Main/General	200	52.0	2007	2012	C	38%	62%	49%	7%	44%
VIRGIN ACTIVE CLUB (FULHAM POOLS)	Main/General	313	51.5	2002		C	29%	71%	60%	8%	32%
VIRGIN ACTIVE CLUB (FULHAM POOLS)	Main/General	250	51.5								
VIRGIN ACTIVE CLUB (HAMMERSMITH)	Main/General	160	51.5	1998	2007	C	40%	60%	56%	7%	37%
Haringey							**90%**	**10%**	**51%**	**18%**	**31%**
LABORATORY SPA & HEALTH CLUB (MUSWELL HILL)	Main/General	300	52.0	1996	2004	C	43%	57%	65%	11%	24%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
MALLINSON SPORTS CENTRE	Main/General	313	34.5	1989		P	99%	1%	65%	21%	15%
NORTHUMBERLAND PARK SPORTS CENTRE	Main/General	180	39.5	1975	2002	P	100%	0%	33%	11%	56%
PARK ROAD POOLS AND FITNESS	Main/General	313	49.5	1973	2015	P	100%	0%	57%	21%	22%
PARK ROAD POOLS AND FITNESS	Diving	121	49.5								
PARK ROAD POOLS AND FITNESS	Learner/Teaching/Training	100	49.5								
TOTTENHAM GREEN POOLS AND FITNESS	Main/General	250	52.0	1991	2014	P	100%	0%	41%	18%	41%
TOTTENHAM GREEN POOLS AND FITNESS	Learner/Teaching/Training	325	42.0								
Harrow							**83%**	**17%**	**73%**	**11%**	**15%**
ASPIRE LEISURE CENTRE	Main/General	325	52.0	1990	1995	P	82%	18%	83%	13%	4%
CANONS SPORTS CENTRE	Main/General	263	15.0	1993		P	100%	0%	55%	11%	34%
GOLDS GYM (HARROW)	Main/General	120	52.0	2002		C	100%	0%	65%	8%	27%
HARROW LEISURE CENTRE	Main/General	528	52.0	1977		P	81%	19%	73%	11%	16%
HARROW LEISURE CENTRE	Learner/Teaching/Training	224	51.5								
HARROW SCHOOL SPORTS COMPLEX	Main/General	325	29.5	1985		P	95%	5%	75%	13%	12%
HATCH END SWIMMING POOL	Main/General	230	46.8	1929	2010	P	96%	4%	77%	10%	13%
NORTH LONDON COLLEGIATE SCHOOL PLAYING FIELDS	Main/General	263	26.0	0		P	38%	62%	54%	11%	35%
Havering							**89%**	**11%**	**76%**	**11%**	**13%**
ABBS CROSS HEALTH AND FITNESS	Main/General	375	38.5	2004		P	100%	0%	77%	12%	12%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
CENTRAL PARK LEISURE CENTRE	Main/General	325	41.5	2004		P	100%	0%	71%	10%	20%
CENTRAL PARK LEISURE CENTRE	Learner/Teaching/Training	72	43.5								
CHAFFORD SPORTS COMPLEX	Main/General	238	39.0	1971	2003	P	100%	0%	75%	11%	13%
COOPERS COMPANY & COBORN SCHOOL	Main/General	173	37.0	1971	2007	P	82%	18%	73%	8%	19%
DAVID LLOYD CLUB (GIDEA PARK)	Main/General	250	52.0	2005		C	59%	41%	79%	6%	14%
HORNCHURCH SPORTS CENTRE	Main/General	416	49.0	1956	2005	P	100%	0%	80%	12%	8%
HORNCHURCH SPORTS CENTRE	Learner/Teaching/Training	72	16.5								
NUFFIELD HEALTH ROMFORD FITNESS & WELLBEING GYM	Main/General	240	52.0	2001		C	62%	38%	79%	8%	14%
NUFFIELD HEALTH ROMFORD FITNESS & WELLBEING GYM	Learner/Teaching/Training	36	52.0								
ST EDWARDS CHURCH OF ENGLAND SCHOOL AND SIXTH FORM COLLEGE	Main/General	200	34.5	1972	2008	P	100%	0%	73%	14%	12%
THE CAMPION SCHOOL	Main/General	200	39.5	1970	2005	P	93%	7%	80%	11%	9%
Hillingdon							**68%**	**32%**	**81%**	**11%**	**8%**
BOTWELL GREEN SPORTS & LEISURE CENTRE	Main/General	425	52.0	2010		P	100%	0%	73%	13%	14%
BOTWELL GREEN SPORTS & LEISURE CENTRE	Learner/Teaching/Training	98	52.0								
HIGHGROVE POOL AND FITNESS CENTRE	Main/General	422	50.0	1967	2013	P	88%	12%	81%	9%	10%
HIGHGROVE POOL AND FITNESS CENTRE	Learner/Teaching/Training	117	16.5								
HILLINGDON SPORTS AND LEISURE COMPLEX	Main/General	1000	49.5	2010		P	76%	24%	87%	12%	1%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
HILLINGDON SPORTS AND LEISURE COMPLEX	Leisure Pool	150	49.5								
NORTHWOOD COLLEGE	Main/General	375	27.5	1993		P	52%	48%	81%	8%	11%
NUFFIELD HEALTH STOCKLEY PARK FITNESS & WELLBEING GYM	Main/General	250	52.0	2001		C	32%	68%	87%	10%	3%
SPIRIT HEALTH CLUB (HEATHROW)	Main/General	192	52.0	1993	2014	C	42%	58%	87%	10%	3%
ST HELENS SCHOOL SPORTS CENTRE	Main/General	325	35.0	2004		P	64%	36%	80%	8%	12%
THE NORTHWOOD CLUB	Main/General	160	52.0	1995		C	40%	60%	79%	6%	15%
VIRGIN ACTIVE CLUB (NORTHWOOD HEALTH AND RACQUETS CLUB)	Main/General	250	52.0	1996		C	29%	71%	89%	6%	4%
VIRGIN ACTIVE CLUB (NORTHWOOD HEALTH AND RACQUETS CLUB)	Main/General	120	52.0								
WILLIAM BYRD POOL	Main/General	161	24.5	1974	2001	P	100%	0%	64%	11%	26%
Hounslow							**59%**	**41%**	**69%**	**13%**	**18%**
BRENTFORD FOUNTAIN LEISURE CENTRE	Main/General	375	45.3	1987		P	100%	0%	70%	16%	13%
BRENTFORD FOUNTAIN LEISURE CENTRE	Leisure Pool	300	50.0								
DAVID LLOYD CLUB (HESTON)	Main/General	300	52.0	1982	2003	C	21%	79%	87%	10%	3%
GOLDS GYM (HOUNSLOW)	Main/General	168	52.0	2007	2013	C	69%	31%	61%	7%	31%
HANWORTH AIR PARK LEISURE CENTRE AND LIBRARY	Main/General	313	50.0	1965	1992	P	66%	34%	70%	12%	19%
HANWORTH AIR PARK LEISURE CENTRE AND LIBRARY	Learner/Teaching/Training	50	50.0								
HANWORTH AIR PARK LEISURE CENTRE AND LIBRARY	Learner/Teaching/Training	49	50.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
HESTON POOLS & FITNESS	Main/General	325	52.0	2015		P	100%	0%	72%	15%	14%
HESTON POOLS & FITNESS	Learner/Teaching/Training	104	52.0								
HOGARTH HEALTH CLUB	Main/General	216	52.0	1981	1997	C	21%	79%	55%	7%	39%
ISLEWORTH LEISURE CENTRE AND LIBRARY	Main/General	365	48.0	1936		P	42%	58%	61%	12%	27%
ISLEWORTH LEISURE CENTRE AND LIBRARY	Leisure Pool	250	37.5								
ISLEWORTH LEISURE CENTRE AND LIBRARY	Learner/Teaching/Training	73	48.0								
NEW CHISWICK POOL	Main/General	300	52.0	1990		P	75%	25%	70%	16%	14%
ROKO HEALTH CLUB (CHISWICK BRIDGE)	Main/General	140	52.0	2008		C	43%	57%	70%	8%	21%
VIRGIN ACTIVE CLASSIC (THE CHISWICK RIVERSIDE HEALTH & RACQUETS CLUB)	Main/General	375	52.0	1987	2008	C	21%	79%	65%	8%	27%
VIRGIN ACTIVE CLASSIC (THE CHISWICK RIVERSIDE HEALTH & RACQUETS CLUB)	Learner/Teaching/Training	100	39.5								
VIRGIN ACTIVE CLUB (CHISWICK PARK)	Main/General	250	52.0	2001	2014	C	46%	54%	65%	9%	27%
Islington							**72%**	**28%**	**40%**	**16%**	**44%**
ARCHWAY LEISURE CENTRE	Main/General	613	49.5	1991	2011	P	100%	0%	45%	17%	38%
CALLY POOL & GYM	Main/General	313	42.0	1985	2000	P	100%	0%	35%	14%	51%
CALLY POOL & GYM	Main/General	200	18.5								
HIGHBURY GROVE SCHOOL	Main/General	140	29.5	2010		P	100%	0%	34%	15%	51%
HIGHBURY POOL AND GYM	Main/General	300	52.0	1984	2006	P	100%	0%	39%	17%	45%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
HIGHBURY POOL AND GYM	Learner/Teaching/Training	100	52.0								
HOLLOWAY SCHOOL	Main/General	250	22.5	2008		P	100%	0%	32%	13%	55%
IRONMONGER ROW BATHS	Main/General	305	44.0	1939	2012	P	94%	6%	41%	17%	42%
IRONMONGER ROW BATHS	Learner/Teaching/Training	90	42.5								
NUFFIELD HEALTH ISLINGTON FITNESS & WELLBEING GYM	Main/General	160	52.0	1998	2008	C	14%	86%	53%	12%	34%
VIRGIN ACTIVE CLUB (ISLINGTON ANGEL)	Main/General	250	52.0	2002		C	12%	88%	56%	13%	31%
VIRGIN ACTIVE CLUB (MOORGATE)	Main/General	375	51.8	2001		C	8%	92%	54%	12%	34%
Kensington and Chelsea							**76%**	**24%**	**47%**	**15%**	**39%**
CHELSEA SPORTS CENTRE	Main/General	225	52.0	1906	2013	P	100%	0%	45%	15%	39%
CHELSEA SPORTS CENTRE	Learner/Teaching/Training	36	23.5								
DAVID LLOYD CLUB (KENSINGTON)	Main/General	200	52.0	1999	2004	C	48%	52%	37%	5%	57%
DAVID LLOYD CLUB (KENSINGTON)	Learner/Teaching/Training	6	52.0								
KENSINGTON LEISURE CENTRE	Main/General	425	52.0	2015		P	100%	0%	48%	17%	35%
KENSINGTON LEISURE CENTRE	Main/General	200	52.0								
KENSINGTON LEISURE CENTRE	Leisure Pool	143	52.0								
LAX (SOUTH KENSINGTON)	Main/General	160	51.0	2002	2012	C	46%	54%	41%	6%	54%
THE PEAK HEALTH CLUB & SPA	Main/General	100	52.0	1987		C	20%	80%	32%	4%	64%
VIRGIN ACTIVE CLUB (NOTTING HILL)	Main/General	160	52.0	1999		C	22%	78%	63%	11%	25%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
Kingston on Thames							**78%**	**22%**	**70%**	**8%**	**22%**
DAVID LLOYD CLUB (KINGSTON)	Main/General	260	51.0	2002		C	86%	14%	70%	6%	24%
KINGFISHER LEISURE CENTRE (KINGSTON)	Main/General	325	41.3	1984	1994	P	85%	15%	64%	8%	27%
KINGFISHER LEISURE CENTRE (KINGSTON)	Learner/Teaching/Training	64	42.3								
MALDEN CENTRE	Main/General	325	52.0	1987		P	81%	19%	72%	9%	19%
MALDEN CENTRE	Learner/Teaching/Training	35	52.0								
NUFFIELD HEALTH KINGSTON FITNESS & WELLBEING GYM	Main/General	250	52.0	2002	2007	C	60%	40%	74%	7%	19%
NUFFIELD HEALTH KINGSTON FITNESS & WELLBEING GYM	Leisure Pool	16	52.0								
Lambeth							**88%**	**12%**	**42%**	**15%**	**43%**
BRIXTON RECREATION CENTRE	Main/General	300	52.0	1985	2004	P	100%	0%	32%	15%	53%
BRIXTON RECREATION CENTRE	Learner/Teaching/Training	184	35.0								
BRIXTON RECREATION CENTRE	Learner/Teaching/Training	120	50.0								
CLAPHAM LEISURE CENTRE	Main/General	325	52.0	2012		P	100%	0%	36%	15%	49%
CLAPHAM LEISURE CENTRE	Learner/Teaching/Training	91	52.0								
FITNESS FIRST HEALTH CLUB (LONDON STREATHAM)	Main/General	200	51.0	2007		C	41%	59%	51%	9%	40%
MARRIOTT LEISURE CLUB (LONDON COUNTY HALL CLUB & SPA)	Main/General	150	52.0	1998	2007	C	8%	92%	40%	9%	51%
STREATHAM ICE & LEISURE CENTRE	Main/General	400	52.0	2013		P	100%	0%	54%	16%	30%
STREATHAM ICE & LEISURE CENTRE	Learner/Teaching/Training	130	52.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
WEST NORWOOD HEALTH AND LEISURE CENTRE	Main/General	325	52.0	2014		P	100%	0%	46%	15%	39%
Lewisham							**93%**	**7%**	**53%**	**16%**	**31%**
DOWNHAM HEALTH & LEISURE CENTRE	Main/General	300	52.0	2007		P	90%	10%	61%	13%	27%
DOWNHAM HEALTH & LEISURE CENTRE	Learner/Teaching/Training	130	38.0								
FOREST HILL POOLS	Main/General	325	52.0	2012		P	90%	10%	54%	16%	30%
FOREST HILL POOLS	Learner/Teaching/Training	117	52.0								
GLASS MILL LEISURE CENTRE	Main/General	425	52.0	2013		P	100%	0%	52%	18%	30%
GLASS MILL LEISURE CENTRE	Learner/Teaching/Training	160	52.0								
ST DUNSTANS COLLEGE SPORTS CENTRE	Main/General	360	29.5	1996		P	100%	0%	42%	12%	46%
THE BRIDGE LEISURE CENTRE	Main/General	250	51.5	1994	2015	P	72%	28%	57%	14%	29%
THE BRIDGE LEISURE CENTRE	Learner/Teaching/Training	111	35.5								
WAVELENGTHS LEISURE CENTRE	Main/General	200	52.0	2008		P	100%	0%	50%	20%	31%
WAVELENGTHS LEISURE CENTRE	Leisure Pool	375	52.0								
Merton							**65%**	**35%**	**66%**	**11%**	**23%**
CANONS LEISURE CENTRE (MITCHAM)	Main/General	250	51.0	1983		P	73%	27%	64%	14%	22%
CANONS LEISURE CENTRE (MITCHAM)	Learner/Teaching/Training	130	46.0								
DAVID LLOYD CLUB (RAYNES PARK)	Main/General	200	52.0	1989	2014	C	76%	24%	69%	7%	24%
MORDEN PARK POOLS	Main/General	426	44.0	1967		P	43%	57%	62%	10%	27%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
MORDEN PARK POOLS	Learner/Teaching/Training	60	52.0								
NUFFIELD HEALTH (WIMBLEDON)	Main/General	160	51.5	2002		P	100%	0%	65%	11%	24%
NUFFIELD HEALTH MERTON ABBEY FITNESS & WELLBEING GYM	Main/General	250	52.0	2005		C	55%	45%	68%	8%	24%
THE KING'S CLUB	Main/General	270	33.8	1985	2011	P	77%	23%	71%	11%	18%
VIRGIN ACTIVE CLUB (WIMBLEDON NORTH ROAD)	Main/General	135	52.0	1999		C	43%	57%	67%	8%	26%
VIRGIN ACTIVE CLUB (WIMBLEDON NORTH ROAD)	Main/General	120	52.0								
VIRGIN ACTIVE CLUB (WIMBLEDON WORPLE ROAD)	Main/General	160	51.0	1998	2005	C	61%	39%	65%	6%	29%
WIMBLEDON COLLEGE	Main/General	250	33.5	1965	2000	P	28%	72%	72%	11%	17%
WIMBLEDON HIGH SCHOOL	Main/General	250	24.0	2002		P	78%	22%	67%	11%	21%
WIMBLEDON LEISURE CENTRE	Main/General	300	51.5	1900	2014	P	94%	6%	66%	13%	21%
WIMBLEDON LEISURE CENTRE	Learner/Teaching/Training	80	42.0								
Newham							**93%**	**7%**	**58%**	**21%**	**21%**
ATHERTON LEISURE CENTRE	Main/General	325	47.5	2016		P	100%	0%	47%	16%	37%
ATHERTON LEISURE CENTRE	Learner/Teaching/Training	200	41.0								
BALAAM LEISURE CENTRE	Main/General	325	45.5	1982	2004	P	100%	0%	46%	15%	39%
BALAAM LEISURE CENTRE	Main/General	243	43.5								
EAST HAM LEISURE CENTRE	Main/General	300	51.0	2001		P	100%	0%	46%	13%	42%
EAST HAM LEISURE CENTRE	Learner/Teaching/Training	72	52.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
LONDON AQUATICS CENTRE	Main/General	1250	52.0	2011		P	87%	13%	66%	26%	8%
LONDON AQUATICS CENTRE	Main/General	1050	52.0								
LONDON AQUATICS CENTRE	Diving	500	2.5								
NEWHAM LEISURE CENTRE	Main/General	325	52.0	1990		P	100%	0%	57%	18%	25%
NEWHAM LEISURE CENTRE	Learner/Teaching/Training	91	52.0								
Redbridge							**93%**	**7%**	**64%**	**10%**	**26%**
BANCROFT'S SCHOOL	Main/General	375	34.5	1970	2012	P	100%	0%	77%	13%	10%
CATERHAM HIGH SCHOOL SPORTS COLLEGE	Main/General	170	30.5	1904	2007	P	100%	0%	64%	10%	25%
FULLWELL CROSS LEISURE CENTRE	Main/General	313	44.5	1967	2007	P	100%	0%	73%	12%	15%
FULLWELL CROSS LEISURE CENTRE	Learner/Teaching/Training	84	44.5								
ILFORD COUNTY HIGH SCHOOL	Main/General	160	35.0	1970	2006	P	100%	0%	70%	11%	19%
LOXFORD SCHOOL OF SCIENCE & TECHNOLOGY	Main/General	200	20.0	1965		P	100%	0%	36%	8%	56%
NUFFIELD HEALTH (ILFORD)	Main/General	250	52.0	2002		P	100%	0%	36%	8%	55%
VIRGIN ACTIVE CLUB (REPTON PARK)	Main/General	200	52.0	2001		C	51%	49%	81%	8%	11%
Richmond on Thames							**54%**	**46%**	**70%**	**10%**	**20%**
CEDARS HEALTH & LEISURE CLUB	Main/General	160	51.0	1995	2016	C	51%	49%	66%	7%	27%
DAVID LLOYD CLUB (HAMPTON)	Main/General	250	52.0	2004		C	59%	41%	78%	8%	14%
LADY ELEANOR HOLLES SCHOOL	Main/General	325	32.0	1974	2004	P	63%	37%	70%	10%	21%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
LENSBURY AT TEDDINGTON LOCK	Main/General	250	51.0	1920	2001	P	29%	71%	69%	9%	22%
LENSBURY AT TEDDINGTON LOCK	Learner/Teaching/Training	50	51.0								
SPRINGHEALTH LEISURE CLUB (POOLS ON THE PARK RICHMOND)	Main/General	425	46.3	1966	2009	P	68%	32%	71%	13%	16%
SPRINGHEALTH LEISURE CLUB (POOLS ON THE PARK RICHMOND)	Learner/Teaching/Training	96	27.0								
ST PAULS SCHOOL	Main/General	250	34.5	1968	2005	P	46%	54%	60%	16%	24%
TEDDINGTON POOLS & FITNESS CENTRE	Main/General	325	46.5	1976		P	43%	57%	68%	9%	23%
TEDDINGTON POOLS & FITNESS CENTRE	Learner/Teaching/Training	104	39.8								
VIRGIN ACTIVE CLASSIC (THE TWICKENHAM CLUB)	Main/General	160	52.0	2009		C	80%	20%	65%	7%	28%
Southwark							**74%**	**26%**	**33%**	**14%**	**53%**
ALLEYN'S SCHOOL	Main/General	250	14.5	1985	2015	P	100%	0%	46%	17%	37%
CAMBERWELL LEISURE CENTRE	Main/General	250	46.5	1900	2012	P	100%	0%	24%	13%	63%
CAMBERWELL LEISURE CENTRE	Learner/Teaching/Training	100	32.5								
DULWICH COLLEGE SPORTS CLUB	Main/General	325	24.5	2002	2013	P	98%	2%	58%	19%	24%
DULWICH LEISURE CENTRE	Main/General	250	51.5	1900	2010	P	100%	0%	39%	15%	46%
DULWICH PREP LONDON	Main/General	250	14.5	1970	2008	P	44%	56%	58%	16%	26%
FITNESS FIRST HEALTH CLUB (LONDON BRIDGE COTTONS)	Main/General	160	50.0	1987	2011	C	14%	86%	34%	9%	57%
GLENDINNING FITNESS CENTRE	Main/General	250	28.5	0		P	69%	31%	14%	8%	79%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
JAGS SPORTS CLUB	Main/General	300	34.5	2002		P	100%	0%	51%	20%	29%
ORCHARD LISLE SWIMMING POOL AT GUYS	Main/General	250	28.5	1985	2004	P	100%	0%	14%	8%	78%
PECKHAM PULSE HEALTHY LIVING CENTRE	Main/General	325	52.0	1998	2015	P	100%	0%	30%	15%	55%
PECKHAM PULSE HEALTHY LIVING CENTRE	Learner/Teaching/Training	120	52.0								
SEVEN ISLANDS LEISURE CENTRE	Main/General	420	22.0	1963	2005	P	100%	0%	18%	8%	74%
THE CASTLE LEISURE CENTRE	Main/General	274	52.0	2016		C	14%	86%	46%	11%	42%
THE CASTLE LEISURE CENTRE	Learner/Teaching/Training	144	52.0								
THIRD SPACE HEALTH CLUB (TOWER BRIDGE)	Main/General	140	52.0	2006		C	18%	82%	27%	7%	66%
Sutton							**84%**	**16%**	**78%**	**11%**	**11%**
CHEAM LEISURE CENTRE	Main/General	360	52.0	1938	2015	P	92%	8%	79%	10%	12%
NUFFIELD HEALTH (CHEAM)	Main/General	160	51.5	2001	2012	P	100%	0%	80%	9%	10%
SURREY HEALTH & RACQUETS CLUB	Main/General	100	52.0	1985	2004	C	24%	76%	86%	7%	7%
SURREY HEALTH & RACQUETS CLUB	Main/General	72	52.0								
WESTCROFT LEISURE CENTRE	Main/General	425	51.5	1977	2013	P	92%	8%	76%	12%	12%
WESTCROFT LEISURE CENTRE	Learner/Teaching/Training	200	51.5								
Tower Hamlets				**1984**			**81%**	**19%**	**36%**	**15%**	**49%**
MILE END PARK LEISURE CENTRE AND STADIUM	Main/General	425	52.0	2006	2014	P	100%	0%	35%	14%	51%
MILE END PARK LEISURE CENTRE AND STADIUM	Main/General	136	52.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
POPLAR BATH	Main/General	213	52.0	0		P	90%	10%	30%	11%	59%
POPLAR BATH	Learner/Teaching/Training	43	52.0								
ST GEORGE'S LEISURE CENTRE	Main/General	500	49.5	1969	2012	P	100%	0%	39%	17%	44%
ST GEORGE'S LEISURE CENTRE	Learner/Teaching/Training	50	49.5								
THE TOWER BRIDGE HEALTH AND FITNESS CLUB	Main/General	158	52.0	2011		C	21%	79%	40%	10%	51%
THIRD SPACE CANARY WHARF	Main/General	224	51.0	2002		C	23%	77%	50%	14%	36%
TILLER LEISURE CENTRE	Main/General	313	33.5	1967	2004	P	97%	3%	34%	12%	54%
VIRGIN ACTIVE CLASSIC (CANARY RIVERSIDE HEALTH CLUB)	Main/General	200	52.0	2001	2011	C	21%	79%	48%	13%	39%
YORK HALL LEISURE CENTRE	Main/General	420	46.8	1929	2006	P	100%	0%	35%	16%	49%
YORK HALL LEISURE CENTRE	Learner/Teaching/Training	83	41.8								
Waltham Forest							**77%**	**23%**	**59%**	**13%**	**29%**
BANNATYNES HEALTH CLUB (CHINGFORD)	Leisure Pool	213	52.0	2002		C	31%	69%	83%	10%	7%
CHINGFORD LEISURE CENTRE	Main/General	313	52.0	2002		P	100%	0%	73%	15%	12%
CHINGFORD LEISURE CENTRE	Learner/Teaching/Training	156	36.0								
LEYTON LEISURE CENTRE	Leisure Pool	193	52.0	1991	2013	P	100%	0%	34%	10%	56%
LEYTON LEISURE CENTRE	Learner/Teaching/Training	84	52.0								
LEYTONSTONE LEISURE CENTRE	Main/General	250	45.0	1977	2014	P	100%	0%	36%	11%	53%
LEYTONSTONE LEISURE CENTRE	Learner/Teaching/Training	120	21.5								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
NUFFIELD HEALTH (CHINGFORD)	Main/General	200	52.0	2001		P	100%	0%	73%	15%	12%
SYLVESTRIAN LEISURE CENTRE	Main/General	325	39.5	2007		P	100%	0%	63%	15%	22%
SYLVESTRIAN LEISURE CENTRE	Learner/Teaching/Training	70	39.5								
THE COMMUNITY POOL AT WALTHAM FOREST COLLEGE	Main/General	375	10.0	1939	2011	P	100%	0%	23%	6%	70%
WALTHAM FOREST FEEL GOOD CENTRE	Main/General	413	52.0	2016		C	30%	70%	82%	11%	8%
WALTHAM FOREST FEEL GOOD CENTRE	Learner/Teaching/Training	150	52.0								
Wandsworth							**70%**	**30%**	**45%**	**12%**	**43%**
ASPIRE CENTRE (SOUTHFIELDS ACADEMY)	Main/General	200	44.5	2004	2011	P	100%	0%	43%	10%	47%
BALHAM LEISURE CENTRE	Main/General	250	46.5	1914	2015	P	100%	0%	38%	11%	51%
BANK OF ENGLAND SPORTS CENTRE	Main/General	200	52.0	1974	2005	C	20%	80%	67%	7%	26%
EMANUEL SCHOOL	Main/General	200	29.5	1930	1970	P	40%	60%	39%	11%	50%
ERNEST BEVIN SCHOOL	Main/General	238	32.0	2007		P	100%	0%	48%	12%	39%
HARRIS ACADEMY BATTERSEA	Main/General	300	15.0	1965		P	42%	58%	46%	17%	37%
LATCHMERE LEISURE CENTRE	Leisure Pool	625	52.0	1983	2015	P	100%	0%	44%	15%	41%
NUFFIELD HEALTH (WANDSWORTH SOUTHSIDE)	Main/General	140	52.0	2002		C	66%	34%	43%	5%	51%
NUFFIELD HEALTH WANDSWORTH	Main/General	160	52.0	1980	1998	P	80%	20%	37%	9%	54%
PUTNEY LEISURE CENTRE	Main/General	376	52.0	1960		P	34%	66%	46%	11%	42%
PUTNEY LEISURE CENTRE	Diving	156	52.0								

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
PUTNEY LEISURE CENTRE	Learner/Teaching/Training	91	52.0								
ROEHAMPTON CLUB	Main/General	250	44.5	1950	2004	P	56%	44%	50%	12%	37%
TOOTING LEISURE CENTRE	Main/General	416	45.5	1976	2015	P	100%	0%	51%	12%	37%
TOOTING LEISURE CENTRE	Learner/Teaching/Training	75	10.8								
VIRGIN ACTIVE CLUB (WANDSWORTH SMUGGLERS WAY)	Main/General	200	51.0	2001		C	42%	58%	50%	7%	43%
Westminster							**52%**	**48%**	**32%**	**11%**	**57%**
DOLPHIN FITNESS CLUB	Main/General	180	52.0	1972	2008	C	13%	87%	31%	5%	63%
ETHOS	Main/General	250	52.0	1967	2006	P	70%	30%	49%	16%	35%
FITNESS FIRST HEALTH CLUB (LONDON BAKER STREET)	Main/General	220	51.0	2008		C	25%	75%	26%	4%	69%
HARBOUR CLUB (NOTTING HILL)	Main/General	160	52.0	2002	2015	C	21%	79%	32%	6%	63%
JUBILEE SPORTS CENTRE (QUEENS PARK)	Main/General	325	47.0	1977		P	100%	0%	29%	11%	61%
LA FITNESS (MARYLEBONE)	Main/General	160	52.0	2002		C	31%	69%	29%	5%	66%
LANSDOWNE CLUB	Main/General	200	46.0	1935	2015	P	23%	77%	41%	12%	47%
MARSHALL STREET LEISURE CENTRE	Main/General	336	52.0	2010		P	32%	68%	32%	11%	58%
NUFFIELD HEALTH (COVENT GARDEN)	Leisure Pool	84	49.0	1990	2010	P	39%	61%	24%	9%	66%
NUFFIELD HEALTH (PADDINGTON)	Main/General	160	49.0	2003	2013	P	100%	0%	26%	9%	65%
POOL AT ST MARY'S HOSPITAL PADDINGTON	Main/General	180	35.8	1930	1995	P	42%	58%	21%	6%	73%
PORCHESTER CENTRE	Main/General	318	43.0	1927	2004	P	100%	0%	37%	13%	51%

Name of Pool	Type	Area	Hours Available	Site Year Built	Site Year Refurb	Public/ Commercial	% of Capacity Used	% of Capacity Not Used	Car % Demand	Public Transport % Demand	Walk % Demand
PORCHESTER CENTRE	Main/General	207	46.5								
QUEEN MOTHER SPORTS CENTRE	Main/General	425	52.0	1981	2004	P	75%	25%	31%	13%	56%
QUEEN MOTHER SPORTS CENTRE	Main/General	112	38.5								
QUEEN MOTHER SPORTS CENTRE	Diving	110	43.5								
ROYAL AUTOMOBILE CLUB (PALL MALL SPORTS)	Main/General	308	52.0	1907	2003	P	10%	90%	38%	13%	49%
SEYMOUR LEISURE CENTRE	Main/General	270	52.0	1920		P	42%	58%	19%	6%	75%

Appendix 3: description of the facilities planning model

1. Included within this appendix are the following:

   a. Model description

   b. Facility Inclusion Criteria

   c. Model Parameters

Background

2. The Facilities Planning Model (FPM) is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with sportscotland and Sport England since the 1980s. The model is a tool to help to assess the strategic provision of community sports facilities in an area. It is currently applicable for use in assessing the provision of sports halls, swimming pools, indoor bowls centres and artificial grass pitches.

Use of FPM

3. Sport England uses the FPM as one of its principal tools in helping to assess the strategic need for certain community sports facilities. The FPM has been developed as a means of:

   - assessing requirements for different types of community sports facilities on a local, regional or national scale;
   - helping local authorities to determine an adequate level of sports facility provision to meet their local needs;
   - helping to identify strategic gaps in the provision of sports facilities; and
   - comparing alternative options for planned provision, taking account of changes in demand and supply. This includes testing the impact of opening, relocating and closing facilities, and the likely impact of population changes on the needs for sports facilities.

4. Its current use is limited to those sports facility types for which Sport England holds substantial demand data, i.e. swimming pools, sports halls, indoor bowls and artificial grass pitches.

5. The FPM has been used in the assessment of Lottery funding bids for community facilities, and as a principal planning tool to assist local authorities in planning for the provision of community sports facilities. For example, the FPM was used to help assess the impact of a 50m swimming pool development in the London Borough of Hillingdon. The Council invested £22 million in the sports and leisure complex around this pool and received funding of £2,025,000 from the London Development Agency and £1,500,000 from Sport England1.

How the model works

6. In its simplest form, the model seeks to assess whether the capacity of existing facilities for a particular sport is capable of meeting local demand for that sport, taking into account how far people are prepared to travel to such a facility.

7. In order to do this, the model compares the number of facilities (supply) within an area, against the demand for that facility (demand) that the local population will produce, similar to other social gravity models.

8. To do this, the FPM works by converting both demand (in terms of people), and supply (facilities), into a single comparable unit. This unit is 'visits per week in the peak period' (VPWPP). Once converted, demand and supply can be compared.

9. The FPM uses a set of parameters to define how facilities are used and by whom. These parameters are primarily derived from a combination of data including actual user surveys from a range of sites across the country in areas of good supply, together with participation survey data. These surveys provide core information on the profile of users, such as, the age and gender of users, how often they visit, the distance travelled, duration of stay, and on the facilities themselves, such as, programming, peak times of use, and capacity of facilities.

10. This survey information is combined with other sources of data to provide a set of model parameters for each facility type. The original core user data for halls and pools comes from the National Halls and Pools survey undertaken in 1996. This data formed the basis for the National Benchmarking Service (NBS). For AGPs, the core data used comes from the user survey of AGPs carried out in 2005/6 jointly with sportscotland.

[1] Award made in 2007/08 year.

11. User survey data from the NBS and other appropriate sources are used to update the models parameters on a regular basis. The parameters are set out at the end of the document, and the range of the main source data used by the model includes;

- National Halls & Pools survey data –Sport England
- Benchmarking Service User Survey data –Sport England
- UK 2000 Time Use Survey - ONS
- General Household Survey - ONS
- Scottish Omnibus Surveys – Sport Scotland
- Active People Survey - Sport England
- STP User Survey - Sport England & sportscotland
- Football participation - The FA
- Young People & Sport in England – Sport England
- Hockey Fixture data - Fixtures Live

Calculating Demand

12. This is calculated by applying the user information from the parameters, as referred to above, to the population2. This produces the number of visits for that facility that will be demanded by the population. Depending on the age and gender makeup of the population, this will affect the number of visits an area will generate. In order to reflect the different population makeup of the country, the FPM calculates demand based on the smallest census groupings. These are Output Areas (OA)3. The use of OA's in the calculation of demand ensures that the FPM is able to reflect and portray differences in demand in areas at the most sensitive level based on available census information. Each OA used is given a demand value in VPWPP by the FPM.

Calculating Supply Capacity

13. A facility's capacity varies depending on its size (i.e. size of pool, hall, pitch number), and how many hours the facility is available for use by the community. The FPM calculates a facility's capacity by applying each of the capacity factors taken from the model

[2] For example, it is estimated that 10.45% of 16-24 year old males will demand to use an AGP, 1.69 times a week. This calculation is done separately for the 12 age/gender groupings.
[3] Census Output Areas (OA) are the smallest grouping of census population data, and provides the population information on which the FPM's demand parameters are applied. A demand figure can then be calculated for each OA based on the population profile. There are over 175,400 OA's across England & Wales. An OA has a target value of 125 households (300 people) per OA.

parameters, such as the assumptions made as to how many 'visits' can be accommodated by the particular facility at any one time. Each facility is then given a capacity figure in VPWPP. (See parameters in Section C).

14. Based on travel time information4 taken from the user survey, the FPM then calculates how much demand would be met by the particular facility having regard to its capacity and how much demand is within the facility's catchment. The FPM includes an important feature of spatial interaction. This feature takes account of the location and capacity of all the facilities, having regard to their location and the size of demand and assesses whether the facilities are in the right place to meet the demand.

15. It is important to note that the FPM does not simply add up the total demand within an area, and compare that to the total supply within the same area. This approach would not take account of the spatial aspect of supply against demand in a particular area. For example, if an area had a total demand for 5 facilities, and there were currently 6 facilities within the area, it would be too simplistic to conclude that there was an over supply of 1 facility, as this approach would not take account of whether the 5 facilities are in the correct location for local people to use them within that area. It might be that all the facilities were in one part of the borough, leaving other areas under provided. An assessment of this kind would not reflect the true picture of provision. The FPM is able to assess supply and demand within an area based on the needs of the population within that area.

16. In making calculations as to supply and demand, visits made to sports facilities are not artificially restricted or calculated by reference to administrative boundaries, such as local authority areas. Users are generally expected to use their closest facility. The FPM reflects this through analysing the location of demand against the location of facilities, allowing for cross boundary movement of visits. For example, if a facility is on the boundary of a local authority, users will generally be expected to come from the population living close to the facility, but who may be in an adjoining authority.

Facility Attractiveness – for halls and pools only

17. Not all facilities are the same and users will find certain facilities more attractive to use than others. The model attempts to reflect this by introducing an attractiveness weighting factor, which effects the way visits are distributed between facilities. Attractiveness however, is very subjective. Currently weightings are only used for hall and pool modelling, with a similar approach for AGPs is being developed.

[4] To reflect the fact that as distance to a facility increases, fewer visits are made, the FPM uses a travel time distance decay curve, where the majority of users travel up to 20 minutes. The FPM also takes account of the road network when calculating travel times. Car ownership levels, taken from Census data, are also taken into account when calculating how people will travel to facilities.

18. Attractiveness weightings are based on the following:

- Age/refurbishment weighting – pools & halls - the older a facility is, the less attractive it will be to users. It is recognised that this is a general assumption and that there may be examples where older facilities are more attractive than newly built ones due to excellent local management, programming and sports development

- Additionally, the date of any significant refurbishment is also included within the weighting factor; however, the attractiveness is set lower than a new build of the same year. It is assumed that a refurbishment that is older than 20 years will have a minimal impact on the facilities attractiveness. The information on year built/refurbished is taken from Active Places. A graduated curve is used to allocate the attractiveness weighting by year. This curve levels off at around 1920 with a 20% weighting. The refurbishment weighting is slightly lower than the new built year equivalent

- Management & ownership weighting – halls only - due to the large number of halls being provided by the education sector, an assumption is made that in general, these halls will not provide as balanced a program than halls run by LAs, trusts, etc, with school halls more likely to be used by teams and groups through block booking. A less balanced programme is assumed to be less attractive to a general, pay & play user, than a standard local authority leisure centre sports hall, with a wider range of activities on offer.

19. To reflect this, two weightings curves are used for education and non-education halls, a high weighted curve, and a lower weighted curve;

- High weighted curve - includes Non education management - better balanced programme, more attractive

- Lower weighted curve - includes Educational owned & managed halls, less attractive.

20. Commercial facilities – halls and pools - whilst there are relatively few sports halls provided by the commercial sector, an additional weighing factor is incorporated within the model to reflect the cost element often associated with commercial facilities. For each population output area the Indices of Multiple Deprivation (IMD) score is used to limit whether people will use commercial facilities. The assumption is that the higher the IMD score (less affluence) the less likely the population of the OA would choose to go to a commercial facility.

Comfort Factor

21. As part of the modelling process, each facility is given a maximum number of visits it can accommodate, based on its size, the number of hours it's available for community use and the 'at one time capacity' figure (pools =1 user /6m2 , halls = 5 users /court). This is gives each facility a "theoretical capacity".

22. If the facilities were full to their theoretical capacity then there would simply not be the space to undertake the activity comfortably. In addition, there is a need to take account of a range of activities taking place which have different numbers of users, for example, aqua aerobics will have significantly more participants, than lane swimming sessions. Additionally, there may be times and sessions that, whilst being within the peak period, are less busy and so will have fewer users.

23. To account of these factors the notion of a 'comfort factor' is applied within the model. For swimming pools, 70% and for sports halls 80% of its theoretical capacity is considered as being the limit where the facility starts to become uncomfortably busy. (Currently, the comfort factor is NOT applied to AGPs due to the fact they are predominantly used by teams, which have a set number of players and so the notion of having 'less busy' pitch is not applicable).

24. The comfort factor is used in two ways;

- Utilised Capacity - How well used is a facility? 'Utilised capacity' figures for facilities are often seen as being very low, 50-60%, however, this needs to be put into context with 70-80% comfort factor levels for pools and halls. The closer utilised capacity gets to the comfort factor level, the busier the facilities are becoming. You should not aim to have facilities operating at 100% of their theoretical capacity, as this would mean that every session throughout the peak period would be being used to its maximum capacity. This would be both unrealistic in operational terms and unattractive to users

- Adequately meeting Unmet Demand – the comfort factor is also used to increase the amount of facilities that are needed to comfortably meet the unmet demand. If this comfort factor is not added, then any facilities provided will be operating at its maximum theoretical capacity, which is not desirable as a set out above.

Utilised Capacity (used capacity)

25. Following on from Comfort Factor section, here is more guidance on Utilised Capacity.

26. Utilised capacity refers to how much of facilities theoretical capacity is being used. This can, at first, appear to be unrealistically low, with area figures being in the 50-60% region. England figure for Feb 2008 Pools was only 57.6%.

27. Without any further explanation, it would appear that facilities are half empty. The key point is not to see a facilities theoretical maximum capacity (100%) as being an optimum position. This, in practise, would mean that a facility would need to be completely full every hour it was open in the peak period. This would be both unrealistic from an operational perspective and undesirable from a user's perspective, as the facility would completely full.

Facility	Car	Walking	Public transport
Swimming Pool	70.0%	18.8%	11.2%
Sports Hall	74.6%	15.5%	10.0%
AGP	89.0%	9.0%	2.0%
Combined	87.1%	10.7%	2.1%
Football	95.4%	2.6%	1.9%
Hockey			

28. For example:

A 25m, 4 lane pool has Theoretical capacity of 2260 per week, during 52 hour peak period.

	4-5pm	5-6pm	6-7pm	7-8pm	8-9pm	9-10pm	Total Visits for the evening
Theoretical max capacity	44	44	44	44	44	44	264
Actual Usage	8	30	35	50	15	5	143

29. Usage of a pool will vary throughout the evening, with some sessions being busier than others though programming, such as, an aqua-aerobics session between 7-8pm, lane swimming between 8-9pm. Other sessions will be quieter, such as between 9-10pm. This pattern of use would give a total of 143 swims taking place. However, the pool's maximum capacity is 264 visits throughout the evening. In this instance the pools utilised capacity for the evening would be 54%.

30. As a guide, 70% utilised capacity is used to indicate that pools are becoming busy, and 80% for sports halls.

Travel times Catchments

31. The model use travel times to define facility catchments. These travel times have been derived through national survey work, and so are based on actual travel patterns of users. With the exception of London where DoT travel speeds are used for Inner & Outer London Boroughs, these travel times are used across the country and so do not pick up on any regional differences, of example, longer travel times for remoter rural communities.

32. The model includes three different modes of travel, by car, public transport & walking. Car ownership levels are also taken into account, in areas of low car ownership, the model reduces the number of visits made by car, and increases those made on foot.

33. Overall, surveys have shown that the majority of visits made to swimming pools, sports halls and AGPs are made by car, with a significant minority of visits to pools and sports halls being made on foot.

34. The model includes a distance decay function; where the further a user is from a facility, the less likely they will travel. The survey data show the % of visits made within each of the travel times, which shows that almost 90% of all visits, both car borne or walking, are made within 20 minutes. Hence, 20 minutes can be used as a rule of thumb for catchments for sports halls and pools.

	Sport halls		Swimming Pools	
Minutes	Car	Walk	Car	Walk
0-10	57%	55%	58%	56%
10-20	33%	30%	34%	30%
20 -40	9%	12%	7%	11%

NOTE: These are approximate figures, and should only be used as a guide.

B. Inclusion Criteria used within analysis

Swimming Pools

35. The following inclusion criteria were used for this analysis;

- Include all Operational Indoor Pools available for community use i.e. pay and play, membership, Sports Club/Community Association
- Exclude all pools not available for community use i.e. private use
- Exclude all outdoor pools i.e. Lidos
- Exclude all pools where the main pool is less than 20 meters OR is less than 160 square meters.5
- Include all 'planned', 'under construction, and 'temporarily closed' facilities where identified
- Where opening times are missing, availability has been included based on similar facility types
- Where the year built is missing assume date 1975/6.

36. Facilities in Wales and the Scottish Borders included, as supplied by sportscotland and Sports Council for Wales. All facilities weighted 75% due to no data on age of facilities.

[5] 160m is equivalent to a 20m x 8m pool. This assumption will exclude very small pools, such as plunge pools and hotel pools.
[6] Choosing a date in the mid '70s ensures that the facility is included, whilst not overestimating its impact within the run.

Model Parameters used in the Analysis

At one Time Capacity	0.16667 per square metre = 1 person per 6 square meters
Catchments	Car: 20 minutes Walking: 1.6 km Public transport: 20 minutes at about half the speed of a car NOTE; Catchments use a distance decay function. Times and distances above are indicative.
Duration	64 minutes for tanks 68 minutes for leisure pools
Participation -% of age band **Frequency - VPWPP**	0-15 16-24 25-39 40-59 60-79 M 13.23 10.86 13.73 8.13 3.93 F 12.72 14.51 18.89 10.44 4.52 M 0.92 0.84 0.71 0.94 1.18 F 0.95 0.76 0.79 0.81 1.07
Peak Period	Weekday: 12:00 to 13:30, 16:00 to 22.00 Saturday: 09:00 to 16:00 Sunday: 09:00 to 16:30 Total: 52 Hours
Percentage of demand in Peak Period	63%