

Sport and Recreation Facilities Improvement Plan 2014 to 2021





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Appendix 2

Sport England's Facilities Planning Model

Newark and Sherwood Council

Provision for Sports Halls

**Review of the 2009 Report on Sports Halls
Provision updated to 2014**

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1. Introduction

- 1.1 Newark and Sherwood Council wish to update their 2009 report on the provision for sports halls to 2014. The purpose of the update being to identify the extent of change in the intervening years and to have an updated evidence base on the supply and demand for sports halls provision.
- 1.2 This report presents the findings from a review and then updating the 2009 Newark and Sherwood Sport England Facilities Planning Model (fpm) analysis and report on the supply and demand for sports halls in the Newark and Sherwood Council area and across a wider study area including the neighbouring authorities to Newark and Sherwood.
- 1.3 The updated assessment is based on a 2014 facility planning model lite analysis produced by Sport England on the supply, demand and accessibility for sports halls for Newark and Sherwood and all the surrounding local authorities. This includes an assessment of the import and export of demand on the catchment area of all local authorities and across local authority boundaries.
- 1.4 The sequence of the review and update analysis and which forms the basis of this report is
 - a review the 2009 fpm data for sports halls under the headings of: total supply; total demand; satisfied demand; unmet demand; and used capacity (how full the facilities are);
 - a comparison of the data and findings from the 2009 fpm report with the data from the 2014 fpm lite data under the same headings. Also included is an updated spatial assessment of the accessibility to swimming pools by different travel modes of car and walking; and
 - to provide a commentary on the impact of the changes between the findings from the two data sets and then set out how these changes impact on the continuing validity of the 2009 fpm report as an evidence base for the supply and demand for sports halls and what has changed.
- 1.5 An executive summary of the key findings and overall assessment precedes the detailed analysis of the two data sets.
- 1.6 Finally on the scope of the study and report, the facility planning model data does provide an evidence base of the supply and demand for sports hall provision which complies with the requirements of the National Planning Policy Framework, especially paragraphs 73 – 74.

Facility Planning Model and National Facility Assessments

- 1.7 The Sport England facility planning model (fpm) is the industry benchmark standard for undertaking needs assessment for swimming pools. The fpm is a computer-based supply/demand model, which has been developed by the University of Edinburgh 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 full artificial grass pitches.

- 1.8 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 the likely impact of population changes on the needs for sports facilities.
- 1.9 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.
- 1.10 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 England.

The Study Area

- 1.11 Describing the study area provides some points of explanation and a context for the report's findings. Both sets of analysis are based on the catchment area of sports halls and the location of demand for indoor hall sports across a study area.
- 1.12 Customers of sports halls 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, there are some big determinants as to which sports halls people will choose to use.
- 1.13 These are based on: how close a sports hall is to where people live; the age and condition of the facility and inherently its attractiveness; other facilities within/on the site such as a fitness suite; club or league match play at a venue; personal and family choice.
- 1.14 Consequently, in determining the position for Newark and Sherwood it is important to take full account of the sports halls in all the neighbouring local authorities to Newark and Sherwood. In particular, to assess the impact of overlapping catchment areas of facilities located in Newark and Sherwood and those located outside the authority. The nearest facility for some Newark and Sherwood residents may be located outside the authority (known as exported demand) and for some residents of neighbouring

authorities their nearest swimming pool is inside Newark and Sherwood (known as imported demand).

- 1.15 Taking account of all these import and export effects is done by establishing a study area which places Newark and Sherwood at the centre of the study and assesses the import and export of demand into and out of the authority and reflects the location, age, condition and content of all the sports halls available for public use.
- 1.16 In addition, this approach does embrace the National Planning Policy Framework approach of taking account of neighbouring authorities when assessing locally derived needs and development of a local evidence base for provision of services and facilities.
- 1.17 The study area map is set out below as Map 1.1.

Map 1.1: Study area for Newark and Sherwood and the bordering local authorities



Definition and listing of sports halls in the assessment

- 1.18 The assessment incorporates all operational indoor sports halls of 3 badminton court size or larger and which are available for community use.
- 1.19 The demand for and capacity/supply of sports halls is measured in visits per week in the peak period (vpwpp). (Note: now referred to as either visits or visits per week). Where

highlighted, an annual figure for throughputs refers to a modified total derived from these weekly visits.

- 1.20 The population data for the whole study area for the 2009 fpm report is based on the 2001 Census and updated to 2009 based on ONS projected changes in population. The 2014 fpm lite assessment is based on the 2011 Census population updated to 2014 based on the ONS population projections.
- 1.21 The rates and frequencies for indoor hall sports participation and calculation of the amount of demand which is met in the peak period are all based on Sport England research. Appendix 3 to the report describes all these parameters and how they are applied in the fpm.

Executive Summary

1.22 This executive summary of the main report describes the key findings from updating the Newark and Sherwood 2009 report on provision for sports halls to 2014. This is set out as firstly a summary of the overall findings and this is followed by the key findings on each of the supply, demand and accessibility headings analysed.

Overall summary of key findings

1.23 The findings and overall assessment from the Newark and Sherwood 2009 fpm report on provision for sports halls updated to 2014 remains valid. The assessment is that the current supply of sports halls across Newark and Sherwood does meet the demand for sports halls in both 2009 and 2014.

1.24 The key finding is that the distribution of demand across venues is an issue with some sports halls estimated to be more full than others.

1.25 This is based on

- the amount of demand contained within the catchment area of each sports hall, which is variable;
- the age of sports halls which makes the more modern sports halls more attractive to participants than older venues and thereby draws demand to them;
- the varying amount of time available for public use at peak times which differs between venues, especially where individual schools determine the extent and type of community use on their site; and
- public leisure centres providing for the full range of activities for club and community use at peak times, thereby drawing demand to them because of the extensive offer.

1.26 A combination of some or all these factors is creating highs and lows in the estimated amount of sports hall space which is used at peak times and this variation has increased since 2009.

1.27 The venues where demand/used capacity is estimated to be highest in 2014 are: Newark Academy at 91% of estimated used capacity in the weekly peak period; Magnus Sports Centre at 79%; and Grove Leisure Centre at 68%. Dukeries Leisure Centre estimated used capacity in the weekly peak period in 2014 is 33%.

Supply of sports halls

1.28 The 2014 assessment has re-assessed the scale and supply of sports hall space at the Dukeries Leisure Centre. The Dukeries Leisure Centre main hall is 29m x 18m and in effect is a main sports hall of at least 3 badminton courts. Also there are three ancillary sports halls at the Dukeries Centre which are: 23m x 13m, 18m x 12m and 15m x 12m. The ancillary halls do provide for sports activities eg gymnastics as well as pilates, yoga and dance and exercise/fitness classes.

- 1.29 It is acknowledged that the full extent of the Dukeries Leisure Centre sports hall supply should have been included in the 2009 fpm assessment. The effect of including the Dukeries Leisure Centre in the 2014 assessment and some other small scale changes at other venues is to increase the effective sports hall supply to 43 badminton courts in total in 2014, of which just fewer than 38 courts are available for public or club use in the weekly peak period. In the 2009 assessment the sports hall supply is 38 badminton courts in total of which 30 were available in the peak period for public/club use.
- 1.30 So in updating the evidence base for the 2014 assessment there is an increase of 5 badminton courts in total (38 to 43 courts in total) and 8 more badminton courts available for public/club use in the weekly peak period in 2014 when compared with 2009 (30 to 38 courts).
- 1.31 This increase in sports halls supply and no effective change in the demand for sport halls between 2009 and 2014 are the biggest influences in updating the findings to provide a 2014 supply and demand evidence base for sports halls.

Demand for sports halls

- 1.32 A change in demand for sports halls is largely driven by changes/increase in population between 2009 and 2014. In 2009 the population of Newark and Sherwood is 115,700 people. This is based on the 2001 Census and with ONS population projections updating that data to 2009. In 2014 the total population of Newark and Sherwood is 117,684 people. This is based on the 2011 Census and with ONS population projections then updated to 2014.
- 1.33 So between 2009 – 2014 there is a projected increase in population of 1,984 people, or, a 1.7% increase in the total population. So a small increase in population and the Newark and Sherwood population in 2014 generates an estimated total demand for sports halls of 5,060 visits in the weekly peak period. This compares with a total demand in 2009 of 5,062 visits - effectively no change.
- 1.34 Another reason for no change in demand for sports halls is the aging of the core resident population between the two years. It could be that in 2014 there are fewer people in the age bands who participate most frequently in hall sports than in 2009. So any increase in total population is offset by the aging of the core resident population and their changes in the frequency of their participation.
- 1.35 The reminder of the Executive Summary sets out the key findings under each of the other headings.
- 1.36 **Satisfied demand** represents the proportion of total demand that is met by the capacity at the sports halls from residents who live within the driving, walking or public transport catchment area of a venue.
- 1.37 In 2009 satisfied demand is 90.9% of total demand. In 2014 this has increased slightly to an even higher 92.4% of the Newark and Sherwood demand for sports halls being met. This means that over nine out of 10 visits to sports halls are inside the catchment area of a venue and there is enough capacity at the sports halls to absorb this very high level of demand.
- 1.38 A sub set of findings for satisfied demand is establishing how much of the total Newark and Sherwood satisfied demand is met by sports halls located in Newark and Sherwood

District, based on the catchment area of the sports hall, this is known as **retained demand**.

- 1.39 In 2009 Newark and Sherwood is retaining some 84.4% of the Newark and Sherwood demand for sports halls at venues inside the District. In 2014 retained demand is 78%. So a decrease of 6.4% in retained demand between the two years.
- 1.40 The reason for less of the Newark and Sherwood demand for sports halls being retained is most likely because between the two years, there may have been either new provision of sports halls, or, modernisation of existing sports halls in the neighbouring authorities. Where the drive time catchment area of any such sports halls extends into Newark and Sherwood, any new/modernised provision will then act as a draw to the Newark and Sherwood demand and the model will export this drawn demand to these venues. Hence a decrease in the level of retained Newark and Sherwood demand at its own sports halls.
- 1.41 **Unmet demand** is defined in two ways: demand for sports halls which cannot be met because (1) there is too much demand for any particular venue within its catchment area; or (2) the demand is located outside the catchment area of any sports hall and is then classified as unmet demand.
- 1.42 Total unmet demand for sports halls in Newark and Sherwood in 2009 is 9% of the total demand for sports halls and equates to just under 3 badminton courts. In 2014 unmet demand falls because of the increased sports hall capacity to 7.6% of total demand and this represents 2.3 badminton courts.
- 1.43 By 2014 all but 0.4% of the unmet demand is under the second definition of demand located outside the catchment area of a sports hall. So whilst some sports halls are estimated to be more full than others, there is no unmet demand because of lack of absolute capacity - it is the distribution of total demand across the venue which is the issue.
- 1.44 The areas of unmet demand outside catchment are dispersed across the district and there is no one hot spot of **LOCATIONAL** unmet demand. It is important to reiterate that this unmet demand is locational and there is enough sports hall supply to meet the unmet demand – it is just that it is located outside the walk to catchment area of a venue. Also it is unmet demand that chooses to walk to a sports hall, or, does not have access to a car (estimated to be 18% of the Newark and Sherwood population in 2014.) In 2014 the estimate is that 9% of all visits to sports halls are on foot (11.6% in 2009).
- 1.45 The 2009 fpm assessment and evidence base updated to 2014 shows that by all the different assessments applied the scale of unmet demand is not an issue.
- 1.46 **Used capacity.** Used capacity is defined as measuring how full the sports halls are. The most important findings in the updating of the 2009 fpm report to 2014 are under used capacity.
- 1.47 In 2009 total used capacity as an average across the sports hall sites in Newark and Sherwood is 59% of total sports hall capacity used. In 2014 this has decreased to 54.3% of sport hall capacity used, so a decrease in used capacity of 4.7% between the two years. Both percentages are well within the Sport England halls full comfort level of 80% of sports hall capacity used.

- 1.48 The reason for the change is almost wholly attributable to the 2014 assessment including more sports hall capacity. The impact of the increase of 5 badminton courts in total and 8 more badminton courts for public use in the weekly peak period with no change in demand is reducing the used capacity of the sports halls.
- 1.49 As reported, the authority wide average used capacity of 54% does however vary across venues. The venues where demand/used capacity is estimated to be highest are: Newark Academy at 91% of estimated used capacity in the weekly peak period; Magnus Sports Centre at 79%; and Grove Leisure Centre at 68%.
- 1.50 The key finding under used capacity is that ACROSS THE AUTHORITY, there is estimated to be enough supply to meet the demand for sports halls. However the distribution and possible access to some venues is creating imbalance in the level of used capacity of sports halls at individual sites.
- 1.51 Table 1.1 below sets out the estimated used capacity at each of the sports hall venues in Newark and Sherwood in 2014.

Table 1.1: Estimated used capacity of sports halls in Newark and Sherwood 2014

Name of facility	Dimensions	FPM Courts	Year built	Year refurbished	% of Capacity used	% of capacity not used
NEWARK & SHERWOOD DISTRICT AVERAGE					54%	46%
DUKERIES LEISURE CENTRE	29 x 18	3	1981		33%	67%
DUKERIES LEISURE CENTRE	23 x 13					
DUKERIES LEISURE CENTRE	18 x 12					
DUKERIES LEISURE CENTRE	15 x 12					
GROVE LEISURE CENTRE (NEWARK)	37 x 18	4	1970		68%	32%
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	34 x 18	4	1995	2004	52%	48%
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	18 x 12					
MAGNUS SPORTS CENTRE	33 x 18	4	2001		79%	21%
MINSTER SCHOOL		4	2007		26%	74%
MINSTER SCHOOL						
NEWARK ACADEMY	33 x 18	4	1999		91%	9%
NEWARK ACADEMY	21 x 12					
NEWARK COLLEGE	25 x 15	2	1950	2004	73%	27%
SOUTHWELL LEISURE CENTRE	29 x 16	3	1985	2007	53%	47%

- 1.52 The key action based on the fpm findings and possible intervention is to try and manage the supply and demand for sports halls across venues, so as to achieve a more balanced level of used capacity at each venue. It is acknowledged this is challenging to do, given many of the sports halls are on education sites and not within the management or control of the District Council.
- 1.53 The other intervention is to try and increase the used capacity of the Dukeries Leisure Centre which does appear low in comparison to the other centres and reduce the level of use at the other centres, under the District Council control.

Summary

- 1.54 The update of the 2009 provision for sports halls report to 2014 shows that the main finding of the 2009 report remains valid in 2014. Namely that the total demand for sports halls by Newark and Sherwood residents can be met by the total supply of sports halls accessible to the Newark and Sherwood population.
- 1.55 The full inclusion of the Dukeries Leisure Centre in the 2014 and other small scale changes at other venues has effectively increased the supply base by 8 further badminton courts to 38 in total in 2014 and which are available for public and club use in the weekly peak period. This together with no change in the total demand for sports halls by Newark and Sherwood residents between 2009 – 2014 is reducing the average used capacity of sports halls at peak times to an estimated District average of 54% of their total capacity being used in 2014.
- 1.56 However the distribution of demand is creating high and lows and the suggested intervention is to try and manage the demand across venues to try and create a more balanced level of usage because the fpm assessment in both 2009 and 2014 is that there is enough sports hall supply/capacity to meet demand.
- 1.57 This ends the reporting of the Executive Summary on the updating of the 2009 fpm report on provision for sports halls to 2014. Set out in the next section are the detailed findings on the updating of the findings from 2009 to 2014 for each of the supply, demand and access headings reviewed.

2. Analysis of sports halls provision based on the 2009 fpm report and updated to 2014 based on Sport England's FPM life data

- 2.1 This analysis sets out the findings under the supply, demand and access to sports halls. It reviews the data from the 2009 Newark and Sherwood facility planning model assessment for sports halls and compares these findings with the Sport England supply and demand assessment for sports halls in Newark and Sherwood based on its 2014 fpm life data.
- 2.2 The presentation of the data has been changed between the 2009 fpm report and 2014. To set the data out in a comparable way the simplest approach is to take the 2014 fpm data layout and re-construct the 2009 fpm data into the same/as close as is possible layout.
- 2.3 This is done for each of the headings starting with total supply. **The 2009 fpm tables are headed in green** and the **2014 fpm life tables are headed in turquoise**. In the 2014 data the findings for East Midlands Region and England wide have been included to provide some comparative context for the Newark and Sherwood findings.

Total Supply

Table 2.1: Total Supply Findings from 2009 FPM Data

Total Supply	Newark & Sherwood
Number of sports hall sites	8
Total number of badminton courts	38
Supply of hall space in courts available in the weekly peak period	30
Sports hall supply in visits per week in the weekly peak period	7,728
No of badminton courts per 10,000 pop'n	3.3

Table 2.2: Total Supply Findings from 2014 FPM Lite data

Total Supply	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Number of halls	14	506	5588
Number of hall sites	8	354	3986
Supply of total hall space in courts	42.9	1871.5	21330.3
Supply of publicly available hall space in courts (scaled with hrs avail in pp)	37.65	1482.75	16326.97
Supply of total hall space in VPWPP	7623	300257	3306212
Courts per 10,000	3.65	4.01	3.92

Table 2.3: Sports hall listing from the 2009 FPM study

Name of facility	No of badminton courts	SITE YEAR BUILT	SITE YEAR REFURB	PUBLIC/COMMERCIAL	COMMNTY HRS AVAIL	Facility Capacity - vpwpp	% of Capacity used	% of capacity not used
Newark and Sherwood						7,728	59%	
Dukeries Leisure Centre	4	1981		P	97	2,430	57%	43%
Grove Leisure Centre	4	1970		P	49	810	64%	36%
Joseph Whittaker Specialist Sports College	4	1995	2004	P	39	1,184	50%	50%
Magnus Sports Centre	4	2001		P	45	790	43%	57%
Minster School	4	2007		P	15	450	51%	49%
Newark College	3	1950`	2004	P	20	300	49%	51%
Southwell Leisure Centre	3	1985	2007	P	105	608	96%	4%
The Grove School	4	2000		P	38	1,156	47%	53%

Table 2.4: Sports halls listing from the 2014 FPM Lite data

Name of facility	Dimensions	Fpm courts	Year built	Year refurbished
NEWARK AND SHERWOOD				
DUKERIES LEISURE CENTRE	29 x 18	3	1981	
DUKERIES LEISURE CENTRE	23 x 13			
DUKERIES LEISURE CENTRE	18 x 12			
DUKERIES LEISURE CENTRE	15 x 12			
GROVE LEISURE CENTRE (NEWARK)	37 x 18	4	1970	
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	34 x 18	4	1995	2004
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	18 x 12			
MAGNUS SPORTS CENTRE	33 x 18	4	2001	
MINSTER SCHOOL		4	2007	
MINSTER SCHOOL				
NEWARK ACADEMY	33 x 18	4	1999	
NEWARK ACADEMY	21 x 12			
NEWARK COLLEGE	25 x 15	2	1950	2004
SOUTHWELL LEISURE CENTRE	29 x 16	3	1985	2007

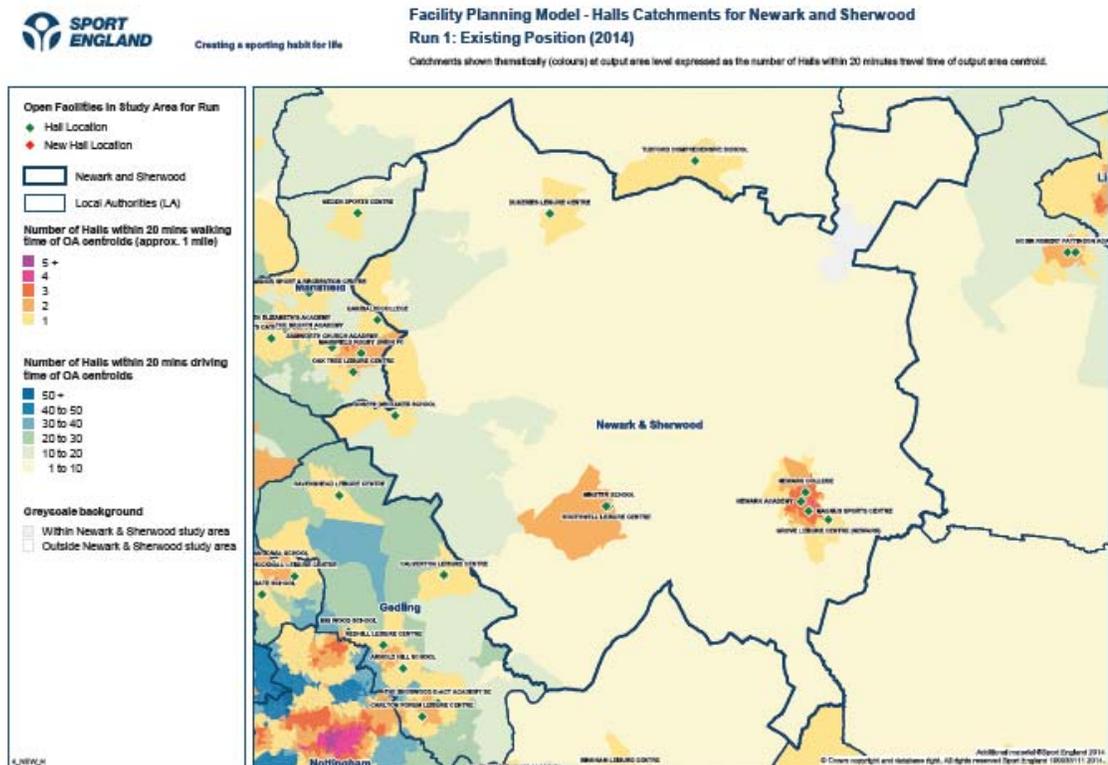
- 2.4 In the 2009 report there is a total supply of 8 sports halls with a total of 38 badminton courts with 30 courts available for public use at peak times (Table 2.3 above).
- 2.5 In the Sport England fpm lite 2014 data set there is a total supply of 8 sports hall with a total of just fewer 43 badminton courts with just fewer than 38 badminton courts (available for public use at peak times. (Table 2.2 above and which includes the ancillary halls and the number of badminton courts in them as well as the main halls for which the number of courts is set out). There is a net difference of an increase in supply of 8 badminton courts between 2009 and 2014 which are available for public use at peak times.
- 2.6 Applying the comparative measure of badminton courts per 10,000 population shows that in 2009 there are 3.3 badminton courts in Newark and Sherwood per 10,000 population in 2009 (table 2.1). This increases slightly to 3.65 badminton courts per 10,000 population in 2014 (table 2.2) The Newark and Sherwood provision in 2014 compares to 4 courts per 10,000 population in East Midlands Region and 3.9 courts across England.
- 2.7 The impact of the changes in supply amounts to a 25% increase in badminton courts available for public use at peak times. It is the interaction with demand and changes in access to sports halls caused by these changes which has to be assessed. This is set out in the subsequent headings of total demand, satisfied demand, unmet demand and used capacity.

Access to sports halls

- 2.8 An addition to the fpm assessment since 2009 is to map the access to sports halls based on both walking catchments (20 minutes/1 mile) and drive to catchments (20 minutes). Car travel is the most popular choice of travel mode to sports halls across Newark and Sherwood and in 2014 the estimate is that 85% of all visits to sports halls are by car.

- 2.9 Map 2.1 below shows the areas of Newark and Sherwood which are accessible to sports halls by both car (areas shaded cream and green) and the walking catchments (areas shaded orange and red).
- 2.10 Across about 80% of the land area of Newark and Sherwood residents have access to between 1 – 10 sports halls based on the location of the sports hall and the extent of its 20 minutes drive time catchment area (area shaded cream). Whilst in the light green areas residents in these areas have access to between 10 – 20 sports halls based on car travel. The evident supply of sports halls in Gedling, and Mansfield is increasing access for Newark and Sherwood residents who live within the 20 minute drive time catchment of sports halls located in these authorities.
- 2.11 The areas shaded light yellow; orange and red is the walk to catchment areas for Newark and Sherwood sport halls based on 20 minutes/1 mile. By definition these are small areas and the accessibility is 1 sports hall in the light yellow areas, 2 sports halls in the areas shaded orange and access to 3 sports halls in the area shaded red.

Map 2.1: Access to sports halls in Newark and Sherwood based on the drive to and walking catchments 2014



Total Demand
Table 2.5: Total Population and Total Demand from 2009 FPM Data

Total Demand	Newark & Sherwood
Population	115,700
Sports halls demand –visits per week in the weekly peak period	5,062
% of population without access to a car	18.2%

Table 2.6: Total Population and Total Demand from 2014 FPM life data

Total Demand	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Population	117684	4661579	54472081
Visits demanded –vpwpp	5060	209202	2483519
Equivalent in courts – with comfort factor included	31.24	1291.38	15330.36
% of population without access to a car	17.8	21.3	24.9

- 2.12 In 2009 the total population of Newark and Sherwood is 115,700 people (Table 2.5). This is based on the 2001 Census and with ONS population projections updating that data to 2009. In 2014 the total population of Newark and Sherwood is 117,684 people (table 2.6). This is based on the 2011 Census and with ONS population projections then updated to 2014.
- 2.13 So between 2009 – 2014 there is a projected increase of 1,984 people, or, put another way a 1.7% increase in the total population.
- 2.14 In 2009 the total demand for sports halls is 5,062 visits in the weekly peak period. In 2014 total demand for sports halls is virtually unchanged at just 2 visits difference at 5,060 visits, so in effect no change. The reasons for there being virtually no change are because the increase in total population is so small and it does not impact on increasing participation in hall sports.
- 2.15 Also it would appear there is no impact of the aging of the core resident population between 2009 – 2014. Sometimes the aging of the core resident population can create a bigger sports hall participant population because between 2009 – 2014 the aging of the core resident population creates more people who are in the age bands that play hall sports in 2014 when compared with 2009. This does not appear to be the case here.
- 2.16 In summary, total population change in Newark and Sherwood between 2009 – 2014 is an increase of 1,984 people to a total of 117,684 people in 2014 or a 1.7% increase. Total demand for sports halls between 2009 – 2014 changes by only 2 visits to a total of 5,060 visits in the weekly peak period in 2014.
- 2.17 Based on the small scale of these changes between 2009 – 2014 in total population and total demand for sports halls, the assessment is that in terms of total demand for sports halls the 2009 fpm report and evidence base updated to 2014 remains robust.

Supply and Demand Balance

- 2.18 Note: the supply and demand balance section of the report only provides a 'global' view of provision – it compares total demand generated **within Newark and Sherwood** for sports halls with the total supply of sports halls **within Newark and Sherwood**. It therefore represents an assumption that ALL the demand for sports halls in Newark and Sherwood is met by ALL the supply of sports halls in Newark and Sherwood.
- 2.19 In short, supply and demand balance is NOT based on where the sports halls are located and their catchment area possibly extending into other authorities. Nor, the catchment areas of sports halls in neighbouring authorities extending into Newark and Sherwood. Most importantly supply and demand balance does NOT take into account the propensity/reasons for residents using facilities outside their own authority. The more detailed modelling based on the CATCHMENT AREAS of sports halls is set out under satisfied demand, unmet demand and used capacity.
- 2.20 The reason for presenting the supply and demand balance is because some local authorities like to see how THEIR total supply of sports halls compares with THEIR total demand for sports halls. So supply and demand balance presents this comparison.
- 2.21 A second note is that the data for 2009 does not allow a comparison of supply and demand balance, the data for 2009 is not available in the same form as for 2014 and so only the 2014 supply and demand data is presented.

Table 2.7: Supply/Demand Balance from 2014 fpm lite data

Supply/Demand Balance	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Supply - Hall provision (courts) scaled to take account of hours available for community use	37.65	1482.75	16326.97
Demand - Hall provision (courts) taking into account a 'comfort' factor	31.24	1291.38	15330.36
Supply / Demand balance	6.41	191.37	996.61

- 2.22 Table 2.7 shows that the total supply of sports halls available for public use for some or all of the weekly peak period is just over 37.6 badminton courts. The total demand for sports halls from Newark and Sherwood residents, allowing for the sports halls to be operating at 80% full comfort factor is for 31 badminton courts (rounded). So there is a positive supply and demand balance of 6 badminton courts. So if all the demand for sports halls was met by all the supply in Newark and Sherwood there would be a surplus of 6 badminton courts.
- 2.23 The findings on satisfied demand, unmet demand and used capacity of sports halls are based on the catchment area of venues and distribution of demand to the nearest sports hall to where demand is located /residents live. It is the consistency of these findings with total supply and total demand which is important because they are all based on the same basis of the catchment area of sports halls.

Satisfied Demand
Table 2.8: Satisfied Demand from 2009 FPM Data

Satisfied Demand	Newark & Sherwood
Total number of visits which are met	4,604
% of total demand satisfied	90.9
% of demand satisfied who travelled by car	86.2%
% of demand satisfied who travelled by foot	11.6%
% of demand satisfied who travelled by public transport	2.2%
Demand Retained	3,890
Demand Retained -as a % of Satisfied Demand	84.4%
Demand Exported	713
Demand Exported -as a % of Satisfied Demand	15.5%

Table 2.9: Satisfied Demand from 2014 fpm life data

Satisfied Demand	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Total number of visits which are met	4677	194042	2263608
% of total demand satisfied	92.4	92.8	91.1
% of demand satisfied who travelled by car	85.53	79.33	77
% of demand satisfied who travelled by foot	9.36	13.76	15.38
% of demand satisfied who travelled by public transport	5.11	6.91	7.62
Demand Retained	3642	189447	2262697
Demand Retained -as a % of Satisfied Demand	77.9	97.6	100
Demand Exported	1035	4596	910
Demand Exported -as a % of Satisfied Demand	22.1	2.4	0

2.24 Satisfied demand represents the proportion of total demand that is met by the capacity at the sports halls from residents who live within the driving, walking or public transport catchment area of a venue. In 2009 satisfied demand represented 90.9% of total demand. In 2014 this has increased slightly to 92.4% of the 2014 total demand for sports halls from Newark and Sherwood residents.

2.25 Overall 92% of total demand being satisfied demand is a very high level. It means that in 2014 over nine out of ten visits to sports halls by Newark and Sherwood residents can be met as the demand is located inside the catchment area of a sports hall and there is enough capacity to absorb this level of demand.

- 2.26 The Newark and Sherwood levels of satisfied demand are in line with the East Midlands Region figure of 92.8% of total demand being satisfied demand and higher than the England wide figure of 91.1% of total demand being satisfied demand.
- 2.27 The travel patterns to sports halls are set out under satisfied demand and there are minor changes between 2009 and 2014. Car is by far the dominate choice of travel mode to sports halls in both years.
- 2.28 The figures are in 2009 some 86.2% of all visits to sports halls by Newark and Sherwood residents are by car. In 2014 this has decreased slightly to 85.5% of all visits, a decrease of 0.7% between the two years.
- 2.29 Travel to sports halls on foot represented 11.6% of all visits in 2009 and by 2014 this has decreased to 9.3% of all visits to sports halls being on foot.
- 2.30 Travel to sports halls by public transport was 2.2% of all visits in 2009 and in 2014 it has increased to 5.1%, an increase of 2. 9%.
- 2.31 Overall for all three travel modes very minor changes in travel patterns to sports halls between 2009 – 2014. It is the access to sports halls by car and on foot which are most important in considering how accessible sports halls are based on where residents live and the catchment area of the venues.

Retained demand

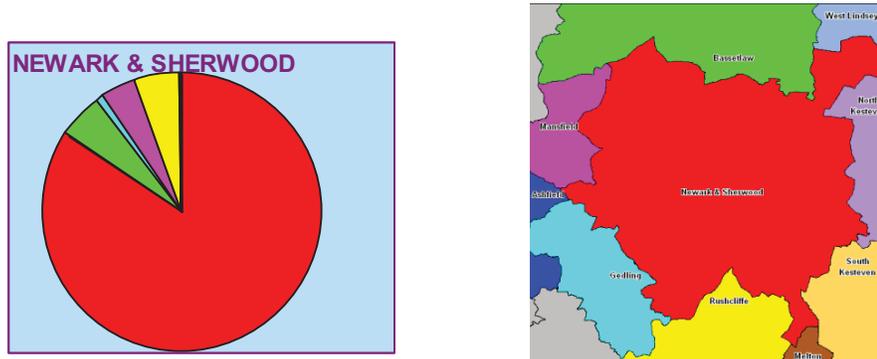
- 2.32 A sub set of findings for satisfied demand is establishing how much of the total Newark and Sherwood satisfied demand is met by sports halls located in Newark and Sherwood and which is BASED ON THE CATCHMENT AREA of the Newark and Sherwood venues. In short, how much of the Newark and Sherwood total demand for sports halls is met by the venues located in the authority and which are available for public use at peak times?
- 2.33 Once it is known how much of the Newark and Sherwood demand is retained then it is possible to identify how much of the Newark and Sherwood demand is met outside the authority. This is known as exported demand.
- 2.34 In 2009 Newark and Sherwood is retaining some 3,890 visits, or, 84.4% of the Newark and Sherwood demand for sports halls at its own sports hall. In 2014 the figures are 3,642 visits, or 77.9%. So a decrease of 248 visits or 6.6% between the two years.
- 2.35 The reason for less of the Newark and Sherwood demand for sports halls being retained is because in the intervening years there may have been either new provision of sports halls, or, modernisation of existing sports halls in the neighbouring authorities. If the drive time catchment area of these sports halls extends into Newark and Sherwood the new or modernised provision will then act as a draw to Newark and Sherwood demand and the model will export this drawn demand to these venues. Hence a decrease in the level of retained Newark and Sherwood demand at its own sports halls. A decrease of 248 visits out of a total of 4,677 of the total demand being met is not a significant change.

Exported demand

- 2.36 The residual of the total satisfied demand, after retained demand has been accounted for is exported demand. In 2009 Newark and Sherwood is exporting some 713 visits or 15.6% of the total Newark and Sherwood satisfied demand for sports halls and this is being met/satisfied at sports hall venues in the other local authorities.

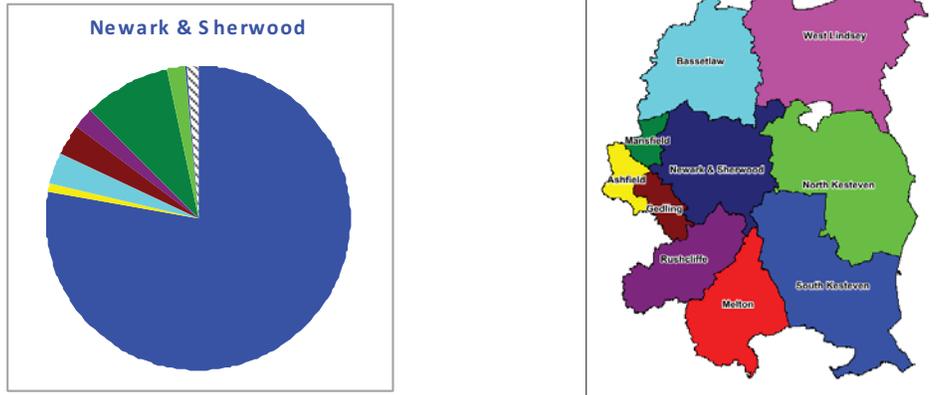
- 2.37 In 2014 the exported demand is 1,035 visits or 22.1% of the total Newark and Sherwood demand is being exported. In other words one in five visits to sports halls by Newark and Sherwood residents is to a sports hall located outside the District. The increase in exported demand since 2009 is 6.5%.
- 2.38 These findings can be illustrated by the 2009 and 2014 pie charts and this is set out in Charts 2.1 and 2.2 below and overleaf with the study area map alongside.
- 2.39 In 2009, the area of the pie shaded red is the Newark and Sherwood demand retained at its own sports halls. The biggest export is to Bassetlaw (shaded green) and Rushcliffe (shaded yellow) at 5% of the total 15.6% of the Newark and Sherwood demand which is exported to each authority. After that it is 4% of the Newark and Sherwood demand is exported to Mansfield (shaded pink). Then it is just over 1% exported to Gedling (shaded turquoise).

Chart 2.1: Retained and exported demand for sports halls. 2009 FPM data



- 2.40 In 2014 the area of the pie chart shaded blue in chart 2 below is the Newark and Sherwood retained demand for sports halls. This represents 3,642 visits or 77.9% of the total satisfied demand for Newark and Sherwood in 2014. In 2009 Newark and Sherwood was retaining a higher 84.4% of its own demand for sports halls at its own venues. So a decrease in retained demand of 6.5% between the two years.
- 2.41 The breakdown of the total Newark and Sherwood exported demand in 2014 of 22% is that some 9% goes to Mansfield (shaded dark green in the pie chart), then 3% goes to each of Gedling (shaded mauve) and Bassetlaw (shaded turquoise), then 2% goes to North Kesteven (shaded light green) and 2% goes outside the study area (striped shading).

**Chart 2.2: Newark and Sherwood retained and exported demand for sports halls. 2014
fpm lite data**



- 2.42 The reasons for this increase in exported demand could be because of changes/increases in supply in sports halls in the neighbouring authorities in the 5 years. If these sports halls are the nearest sports halls to where some Newark and Sherwood residents live then more demand will be exported to them.
- 2.43 An overall summary of the findings under satisfied demand are that in terms of TOTAL satisfied demand, there is an increase of 2.5% to a very high 92.4% of the total Newark and Sherwood demand being located inside a sports hall catchment area, either in the authority or outside. There is enough capacity at these sports halls to absorb over nine out of ten visits in 2009 and slightly more in 2014.
- 2.44 In terms of travel patterns to sports halls this is dominated by car travel in 2014 at 85.5% of all visits but virtually unchanged from 2009 when it was 86.2% of all visits. This very high percentage of travel by car and the 20 minute drive time catchment area of sports halls are creating this high accessibility. There are over 40 sports halls in the 8 local authorities which border Newark and Sherwood.
- 2.45 Travel by walking represented 9.3% of all visits to sports halls in 2014, a slight decrease on the 11.6% in 2009.

Unmet Demand

- 2.46 Unmet demand is defined in two ways: demand for sports halls which cannot be met because (1) there is too much demand for any particular venue within its catchment area; or (2) the demand is located outside the catchment area of any sports hall and is then classified as unmet demand.

Table 2.10: Unmet Demand from 2009 FPM Data

Unmet Demand	Newark & Sherwood
Total number of visits in the peak, not currently being met	459
Unmet demand as a % of total demand	9%
Equivalent in number of badminton courts- with comfort factor	2.8
% of Unmet Demand due to ; Lack of Capacity - Outside Catchment -	0.5%
	99.5%

Table 2.11: Unmet Demand from 2014 fpm lite data

Unmet Demand	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Total number of visits in the peak, not currently being met	384	15160	219911
Unmet demand as a % of total demand	7.6	7.2	8.9
Equivalent in Courts - with comfort factor	2.36	93.58	1357.48
% of Unmet Demand due to ; Lack of Capacity - Outside Catchment -	0.3	7.3	27.6
	99.65	92.73	72.42

2.47 Total unmet demand for sports halls in Newark and Sherwood is 459 visits in the 2009 fpm report. This is 9% of the total demand for sports halls and equates to just under 3 badminton courts, when assessed on the basis of the sports hall comfort factor of 80% of all sports hall capacity being used.

2.48 Unmet demand decrease slightly between 2009 – 2014. It is 384 visits, which is 7.6% of total demand and this represents 2.3 badminton courts, when assessed on the basis of the sports hall comfort factor of 80% of all sports hall capacity being used. These findings are set out in tables 2.10 and 2.11 above.

2.49 There is no change in the amount of unmet demand under each definition. Unmet demand due to lack of sports hall is 0.5% in 2009 and 0.3% in 2014. In short there is no unmet demand due to lack of total sports hall capacity in either year. Just some sports halls are more full than others as will be set out under the used capacity heading.

2.50 It is important to reiterate that this unmet demand is locational and there is enough sports hall supply to meet the sports hall demand in 2014 – it is just that it is located outside the catchment area of a venue.

2.51 In terms of the location of unmet demand, this is illustrated in map 3 for 2014. As map 3 shows there is a grey area of the map in the NE corner of the authority which is outside

Table 2.13: Used capacity 2009 FPM Data

Used Capacity	Newark & Sherwood
Total number of visits used of current capacity	4,560
% of overall capacity of sports halls used	59%
Visits Imported;	
Number of visits imported	670
As a % of used capacity	14,6%

Table 2.14: Used capacity 2014 fpm life data

Used Capacity	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Total number of visits used of current capacity	4141	193529	2264907
% of overall capacity of halls used	54.3	64.5	68.5
% of visits made to halls by walkers	10.4	13.8	15.4
% of visits made to halls by road	89.6	86.2	84.6
Visits Imported;			
Number of visits imported	499	4082	2210
As a % of used capacity	12	2.1	0.1
Visits Retained:			
Number of Visits retained	3642	189447	2262697
As a % of used capacity	88	97.9	99.9

- 2.54 The total used capacity as an average across the sports hall sites in Newark and Sherwood in 2009 is 59% of total sports hall capacity used. In 2014 the estimate is that used capacity is 54.3% of sport hall capacity used. So a decrease in used capacity of 4.7% between the two years.
- 2.55 The decrease is down to two factors. The first being the increase in sports hall supply between the two years. In 2009 there are 38 sports halls on 8 sites. The supply of courts is 38 in total and 30 courts available for public use in the weekly peak period. The assessment is that in 2014 there are still 8 sites but the number of courts is 42 in total and 38 courts available for public use in the weekly peak period.
- 2.56 For the 2014 fpm assessment the study has included ancillary halls which are at the Dukeries Centre and are one hall of 23m x 13 m and another of 15n x 12m. (The main Dukeries sports hall of 29m x 18m is also included). So the effect of inclusion of more courts is increasing supply.
- 2.57 Secondly, the aging of the Newark and Sherwood resident population over the 5 years could mean that there are fewer residents in the main age groups who participate most frequently in indoor hall sports. So the impact of an increase in total demand could be offset by the aging of the core resident population's total demand for sports halls between the two years.

2.58 The percentages for both years on used capacity of sports halls are well within the Sport England halls full comfort level of 80% of sports hall capacity used.

2.59 The authority wide average used capacity assessment of 54% in 2014 does, however, vary across venues. The used capacity percentage for each venue is set out in table 2.15 below. The used and unused capacity columns are in grey. The venues with the highest used capacity are shown in blue. These are: Newark Academy at 91% of estimated used capacity in the weekly peak period; Magnus Sports Centre at 79%; Newark College at 73% and Grove Leisure Centre at 68%.

Table 2.15: Used Capacity of each sports hall site in Newark and Sherwood. 2014 fpm lite data

Name of facility	Dimensions	Fpm no of courts	Year built	Year refurbished	% of Capacity used	% of capacity not used
NEWARK & SHERWOOD					54%	46%
DUKERIES LEISURE CENTRE	29 x 18	3	1981		33%	67%
DUKERIES LEISURE CENTRE	23 x 13					
DUKERIES LEISURE CENTRE	18 x 12					
DUKERIES LEISURE CENTRE	15 x 12					
GROVE LEISURE CENTRE (NEWARK)	37 x 18	4	1970		68%	32%
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	34 x 18	4	1995	2004	52%	48%
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	18 x 12					
MAGNUS SPORTS CENTRE	33 x 18	4	2001		79%	21%
MINSTER SCHOOL		4	2007		26%	74%
MINSTER SCHOOL						
NEWARK ACADEMY	33 x 18	4	1999		91%	9%
NEWARK ACADEMY	21 x 12					
NEWARK COLLEGE	25 x 15	2	1950	2004	73%	27%
SOUTHWELL LEISURE CENTRE	29 x 16	3	1985	2007	53%	47%

2.60 The reasons why the used capacity can vary across venues are several;

- there could be more demand in the catchment area of one sports hall than another;
- some sports hall venues have fewer hours of community use, most noticeably school based sports halls where each school determines the type and hours of community use. Minster School has an estimated used capacity of 26% of its total capacity in the weekly peak period and this could be because it does not have many hours of public use. Demand in the catchment area of this venue which cannot access it will then go to other venues in the same catchment area as the Minster School venue; and
- The size of sports hall. It is noticeable that the venues with the highest used capacity are all 4 badminton court size venues which can accommodate the full range of indoor sports halls activity at the community level. Therefore some sports and demand will be drawn to venues which are big enough to cater for their sport and not use the smaller venues. Also 4 court halls can accommodate more

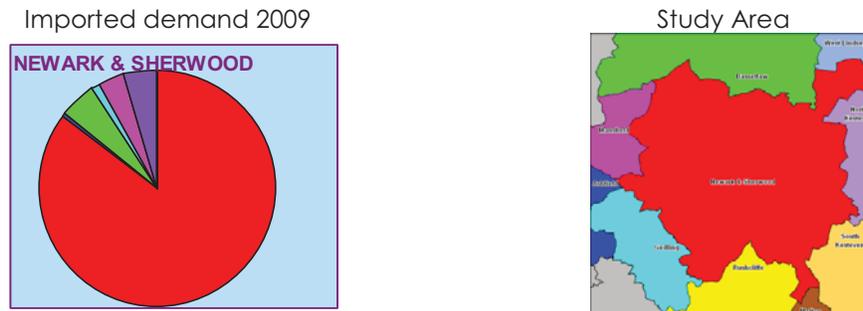
demand at any one time noticeably for fitness training or classes and it maybe therefore that their used capacity is higher because, again, demand will go to these venues first.

- 2.61 Data from the 2009 fpm assessment is not available and so it is not possible to say how used capacity varies by venue between the two years. However the authority wide used capacity average was 4.7% higher in 2009 at 59% of total capacity being used at peak times. So it is reasonable to assume that the 2014 percentages by venues are lower than in 2009.
- 2.62 The key finding from this overall updating study is that there is ACROSS THE AUTHORITY; there is enough supply to meet the demand for sports halls. There is an average used capacity of sports halls estimated to be at 54.3% which is well within the Sport England comfort level of 80% of capacity used.
- 2.63 The key intervention/action is to try and re-distribute this demand across venues so as to even out the average used capacity. Given some 85% of all visits to sports halls are by car and based on a 20 minute drive time catchment area then a lot of the Newark and Sherwood sports halls will be accessible to the majority of the location of the demand as Newark and Sherwood is retaining 78% of its own demand for sports halls at its own venues.
- 2.64 So “moving the demand around” by programming changes at venues to accommodate more use at venues with lower used capacity does sound to be possible. However to achieve this requires the co-operation and agreement of different sports hall providers and operators, especially individual schools. So what appears achievable/desirable on paper is most likely very challenging to achieve by negotiation and agreement.
- 2.65 The fall back position is that the estimate is that overall, there is enough capacity at the Newark and Sherwood venues to absorb the total demand for sports halls, both in 2009 and 2014. Just some centres are experiencing more demand/usage than others.

Imported demand for sports halls

- 2.66 The level of demand for sports halls imported into Newark and Sherwood is reported in the used capacity category of findings. This is because it is based on residents who live outside of Newark and Sherwood but the nearest sports hall to where they live is located inside the authority. In this instance the model distributes this demand to the Newark and Sherwood venues and so it becomes part of the used capacity of the Newark and Sherwood sports halls.
- 2.67 In 2009 Newark and Sherwood imported 670 visits or 14.6% of the total used capacity of the Newark and Sherwood sports halls. It is possible to identify how much and where this imported demand is coming from. This is set out in Chart 2.3 overleaf.
- 2.68 The red part of the pie chart is the Newark and Sherwood used capacity of the sports halls. The green part of the pie chart is Bassetlaw and 5% of the used capacity of the Newark and Sherwood sports halls is imported from Bassetlaw. The purple part of the pie chart is North Kesteven and 4% of the used capacity is imported from North Kesteven. The pink part of the pie chart is Mansfield where also 4% of the Newark and Sherwood sports hall used capacity is imported from. Finally the turquoise part of the pie chart is Gedling and 1% of the used capacity is imported from Gedling.

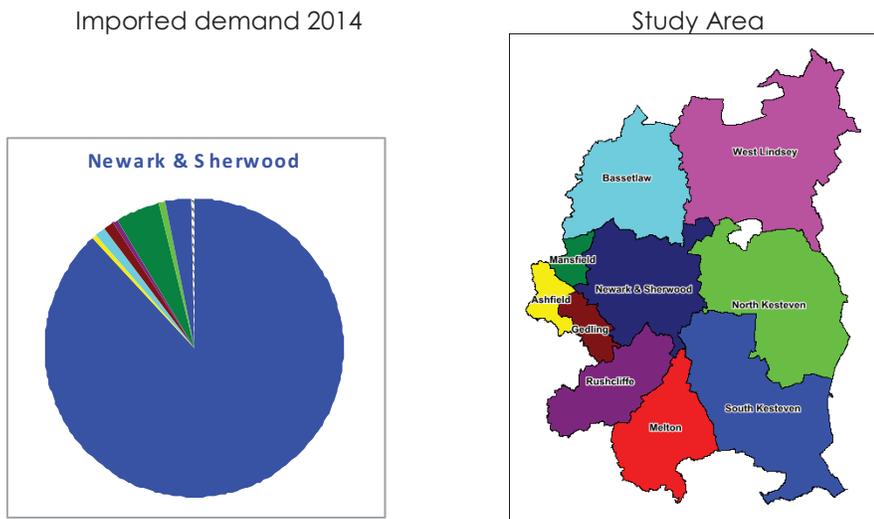
Chart 2.3: Imported demand for sports halls. 2009 FPM data



2.69 In 2014 the level of imported demand which is met at Newark and Sherwood's sports halls decreases to 499 visits, or 12% of the total used capacity of the Newark and Sherwood sports halls. So a decrease of 171 visits or 2.6% of the used capacity of the Newark and Sherwood sports halls. Chart 2.4 below shows the source and amount of imported demand from each authority in 2014.

2.70 The biggest import is from Mansfield at 5% of the used capacity of the Newark and Sherwood sports halls (shaded dark green in the pie chart). After that 3% of the used capacity is imported from South Kesteven (shaded blue) and then 1% from each of Bassetlaw, (shaded turquoise), North Kesteven (shaded light green) and Gedling (shaded mauve).

Chart 2.4: Imported demand for sports halls. 214 fpm lite data



Relative Share

2.71 In addition to the supply and demand assessment above, the FPM also analyses the relative share of sports halls – i.e. it takes into account the location of the population with the size and availability of facilities. It then assesses establish whether residents in one area have a greater or lesser share of provision than other areas, when compared against a national average (100).

2.72 A simple analogy is to consider sports hall provision as a cake, its size being proportional to the facility's catchment and its slices divided among the users within the catchment.

2.73 This data is not available for the 2009 fpm assessment but it is available for 2014.

Table 2.16: Relative Share of access to sports halls. 2014 fpm life data

Relative Share	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	119	107	104.0
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	19	7	0

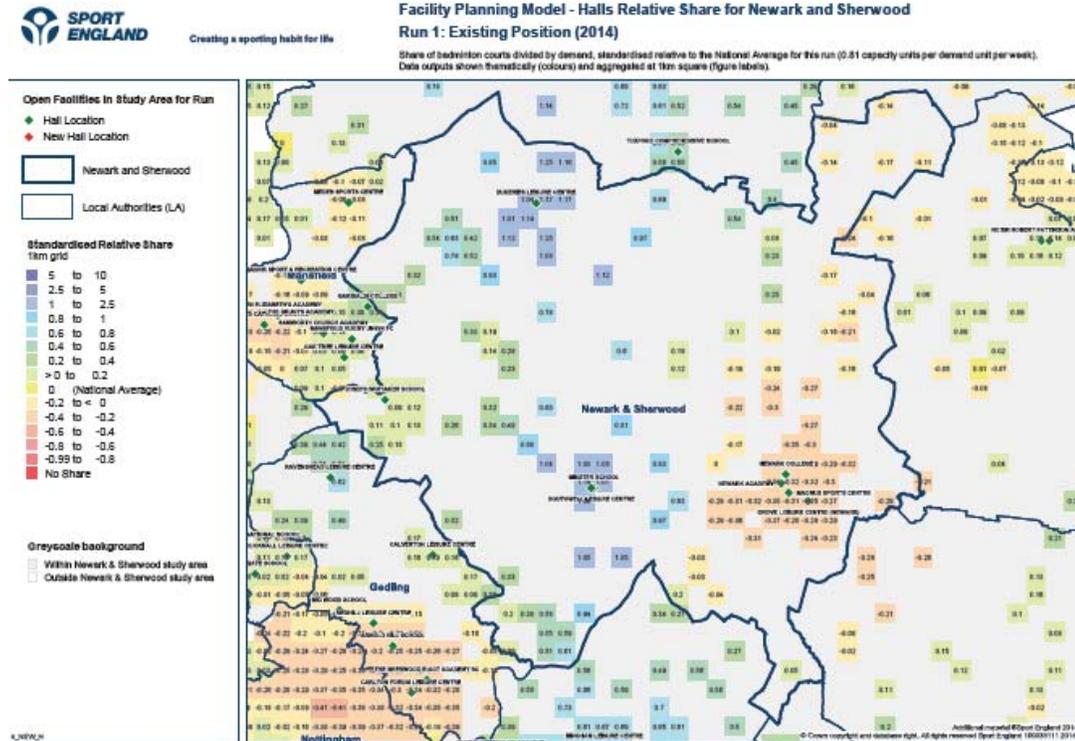
2.74 Table 2.16 above shows that Newark and Sherwood has a positive relative share of access to sports halls at an authority wide value of 119. This means residents have 19% more access to sports halls when compared to the England wide average set at 100%. In East Midlands Region there is also a positive relative share of 7% more than the national average of access to sports halls when compared to the England wide average.

2.75 Relative share does vary across the authority and in some areas and in some areas it is above the England wide average whilst in other areas it is below. This is set out in Map 2.3 overleaf.

2.76 In the areas shaded green it is between 2% – 6% above the England wide average, whilst in the areas shaded blue it is between 6% to the highest of 25% above the England wide average. As Map 2.3 shows relative share is highest in the west and north of the authority.

2.77 In the areas around Newark there is a negative relative share and the areas shaded beige is between 2% - 4% below the England wide average. Newark has the highest concentration of sports halls but it would seem to also have the highest concentration of population. So the higher population means more people to share this access. This is creating a smaller slice of access to venues in this area. (Note: the maps do not reproduce clearly in the report but a full set of maps will be made available separately to the Council

Map 2.3: Relative share of access to sports halls. 2014 fpm lite data



2.78 This ends the reporting of the main and detailed finding on reviewing and updating of the 2009 fpm report on provision for sports halls with the 2014 fpm lite assessment of provision for sports halls in Newark and Sherwood.

Appendix 1: List of the data applied and used in this analysis and report
Data from the 2009 fpm report on provision for sports halls in Newark and Sherwood

Total Supply		Newark & Sherwood
Number of sports hall sites		8
Total number of badminton courts		38
Supply of hall space in courts available in the weekly peak period		30
Sports hall supply in visits per week in the weekly peak period		7,728
No of badminton courts per 10,000 pop'n		3.3
Total Demand		Newark & Sherwood
Population		115,700
Sports halls demand –visits per week in the weekly peak period		5,062
% of population without access to a car		18.2%
Satisfied Demand		Newark & Sherwood
Total number of visits which are met		4,604
% of total demand satisfied		90.9
% of demand satisfied who travelled by car		86.2%
% of demand satisfied who travelled by foot		11.6%
% of demand satisfied who travelled by public transport		2.2%
Demand Retained		3,890
Demand Retained -as a % of Satisfied Demand		84.4%
Demand Exported		713
Demand Exported -as a % of Satisfied Demand		15.5%
Unmet Demand		Newark & Sherwood
Total number of visits in the peak, not currently being met		459
Unmet demand as a % of total demand		9%
Equivalent in number of badminton courts- with comfort factor		2.8
% of Unmet Demand due to ;		
Lack of Capacity -		0.5%
Outside Catchment -		99.5%
Used Capacity		Newark & Sherwood
Total number of visits used of current capacity		4,560
% of overall capacity of sports halls used		59%
Visits Imported;		
Number of visits imported		670
As a % of used capacity		14.6%

Newark and Sherwood 2014 fpm life sports halls data

Total Supply	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Number of halls	14	506	5588
Number of hall sites	8	354	3986
Supply of total hall space in courts	42.9	1871.5	21330.3
Supply of publicly available hall space in courts (scaled with hrs avail in pp)	37.65	1482.75	16326.97
Supply of total hall space in VPWPP	7623	300257	3306212
Courts per 10,000	3.65	4.01	3.92

Total Demand	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Population	117684	4661579	54472081
Visits demanded –vpwpp	5060	209202	2483519
Equivalent in courts – with comfort factor included	31.24	1291.38	15330.36
% of population without access to a car	17.8	21.3	24.9

Supply/Demand Balance	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Supply - Hall provision (courts) scaled to take account of hours available for community use	37.65	1482.75	16326.97
Demand - Hall provision (courts) taking into account a 'comfort' factor	31.24	1291.38	15330.36
Supply / Demand balance	6.41	191.37	996.61

Satisfied Demand	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Total number of visits which are met	4677	194042	2263608
% of total demand satisfied	92.4	92.8	91.1
% of demand satisfied who travelled by car	85.53	79.33	77
% of demand satisfied who travelled by foot	9.36	13.76	15.38
% of demand satisfied who travelled by public transport	5.11	6.91	7.62
Demand Retained	3642	189447	2262697
Demand Retained -as a % of Satisfied Demand	77.9	97.6	100
Demand Exported	1035	4596	910
Demand Exported -as a % of Satisfied Demand	22.1	2.4	0

Unmet Demand	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Total number of visits in the peak, not currently being met	384	15160	219911
Unmet demand as a % of total demand	7.6	7.2	8.9
Equivalent in Courts - with comfort factor	2.36	93.58	1357.48
% of Unmet Demand due to ;			
Lack of Capacity -	0.3	7.3	27.6
Outside Catchment -	99.65	92.73	72.42
Outside Catchment;	99.65	92.73	72.42
% Unmet demand who do not have access to a car	84.23	78.58	64.42
% of Unmet demand who have access to a car	15.42	14.15	7.99
Lack of Capacity;	0.3	7.3	27.6
% Unmet demand who do not have access to a car	0.13	4.94	23.22
% of Unmet demand who have access to a car	0.22	2.33	4.37

Used Capacity	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Total number of visits used of current capacity	4141	193529	2264907
% of overall capacity of halls used	54.3	64.5	68.5
% of visits made to halls by walkers	10.4	13.8	15.4
% of visits made to halls by road	89.6	86.2	84.6
Visits Imported;			
Number of visits imported	499	4082	2210
As a % of used capacity	12	2.1	0.1
Visits Retained:			
Number of Visits retained	3642	189447	2262697
As a % of used capacity	88	97.9	99.9

Relative Share	Newark & Sherwood	EAST MIDLANDS TOTAL	ENGLAND TOTAL
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	119	107	100
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	19	7	0

**Appendix 2 Sports hall data used in the fpm life assessment 2014 for Newark and Sherwood
and in the surrounding local authorities**

Name of facility	Dimensions	FPM Courts	Year built	Year refurbished
NEWARK & SHERWOOD				
DUKERIES LEISURE CENTRE	29 x 18	3	1981	
DUKERIES LEISURE CENTRE	23 x 13			
DUKERIES LEISURE CENTRE	18 x 12			
DUKERIES LEISURE CENTRE	15 x 12			
GROVE LEISURE CENTRE (NEWARK)	37 x 18	4	1970	
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	34 x 18	4	1995	2004
JOSEPH WHITAKER SPECIALIST SPORTS COLLEGE AND FOUNDATION SCHOOL	18 x 12			
MAGNUS SPORTS CENTRE	33 x 18	4	2001	
MINSTER SCHOOL		4	2007	
MINSTER SCHOOL				
NEWARK ACADEMY	33 x 18	4	1999	
NEWARK ACADEMY	21 x 12			
NEWARK COLLEGE	25 x 15	2	1950	2004
SOUTHWELL LEISURE CENTRE	29 x 16	3	1985	2007
ASHFELD				
ASHFIELD COMPREHENSIVE SCHOOL		3	2004	
ASHFIELD COMPREHENSIVE SCHOOL				
ASHFIELD COMPREHENSIVE SCHOOL				
ASHFIELD COMPREHENSIVE SCHOOL				
FESTIVAL HALL LEISURE CENTRE		3	1980	2003
HUCKNALL LEISURE CENTRE		4	1984	2008
KIRKBY COLLEGE		4	1980	2007
KIRKBY COLLEGE	18 x 10			
LAMMAS LEISURE CENTRE		4	2008	
QUARRYDALE SCHOOL		3	1972	2011
QUARRYDALE SCHOOL	17 x 12			
SELSTON LEISURE CENTRE		4	1974	2003
SUTTON COMMUNITY ACADEMY LEISURE CENTRE		6	1977	2008
SUTTON COMMUNITY ACADEMY LEISURE CENTRE		4		
SUTTON COMMUNITY ACADEMY LEISURE CENTRE				
THE HOLGATE SCHOOL	30 x 20	4	1950	2004
THE NATIONAL SCHOOL A CHURCH OF ENGLAND TECHNOLOGY COLLEGE		4	1981	
BASSETLAW				
BIRCOTES LEISURE CENTRE	27 x 18	3	1976	2008
BIRCOTES LEISURE CENTRE	11 x 5			
NORTH NOTTS COMMUNITY ARENA	32 x 19	4	1983	
OUTWOOD ACADEMY PORTLAND		5	2008	
OUTWOOD ACADEMY PORTLAND				
RETFORD OAKS HIGH SCHOOL		4	2007	
THE ELIZABETHAN HIGH SCHOOL		4	2007	2011
THE ELIZABETHAN HIGH SCHOOL	20 x 15			
TUXFORD COMPREHENSIVE SCHOOL	33 x 16	3	2007	
VALLEY SCHOOL		4	2008	
VALLEY SCHOOL				
WORKSOP COLLEGE		4	1996	

Name of facility	Dimensions	FPM Courts	Year built	Year refurbished
GEDLING				
ARNOLD HILL COMPREHENSIVE SCHOOL		4	1955	2003
ARNOLD HILL COMPREHENSIVE SCHOOL				
ARNOLD HILL COMPREHENSIVE SCHOOL				
BIG WOOD SCHOOL	34 x 24	4	2010	
CALVERTON LEISURE CENTRE		3	1975	
CALVERTON LEISURE CENTRE				
CARLTON FORUM LEISURE CENTRE		4	1970	1999
RAVENSHEAD LEISURE CENTRE	32 x 17	4	1991	
RAVENSHEAD LEISURE CENTRE				
REDHILL LEISURE CENTRE		3	1977	2004
THE SHERWOOD E-ACT ACADEMY SPORTS CENTRE		4	1978	2011
THE SHERWOOD E-ACT ACADEMY SPORTS CENTRE				
RUSHCLIFFE				
BINGHAM LEISURE CENTRE		5	1969	2010
BINGHAM LEISURE CENTRE	20 x 15			
BINGHAM LEISURE CENTRE	20 x 15			
DAVID LLOYD CLUB (NOTTINGHAM WEST BRIDGFORD)		8	1997	
RUSHCLIFFE ARENA	33 x 18	4	1998	
RUSHCLIFFE LEISURE CENTRE	29 x 18	3	1976	2002
RUSHCLIFFE LEISURE CENTRE	28 x 12			
SOUTH NOTTINGHAM ACADEMY	33 x 18	4	1973	
THE BECKET SCHOOL	33 x 18	4	2009	
THE NOTTINGHAM EMMANUEL C OF E SCHOOL	33 x 18	4	2008	
THE NOTTINGHAM EMMANUEL C OF E SCHOOL				
UNIVERSITY OF NOTTINGHAM (SUTTON BONNINGTON SPORTS CENTRE)	35 x 19	4	2008	
WEST BRIDGFORD SCHOOL		5	1969	2012
WEST BRIDGFORD SCHOOL				
MANSFIELD				
ALL SAINTS CATHOLIC SCHOOL		4	1981	
GARIBALDI COLLEGE	33 x 18	4	1994	
GARIBALDI COLLEGE				
GARIBALDI COLLEGE				
MANOR SPORT & RECREATION CENTRE	33 x 18	4	2002	
MANSFIELD RUGBY UNION FOOTBALL CLUB		4	1994	2002
MEDEN SPORTS CENTRE	36 x 20	3	1964	
MEDEN SPORTS CENTRE	12 x 12			
OAK TREE LEISURE CENTRE		4	2006	
QUEEN ELIZABETH'S ACADEMY	33 x 18	4	1990	
SAMWORTH CHURCH ACADEMY	33 x 18	4	2010	
SAMWORTH CHURCH ACADEMY				
THE BRUNTS ACADEMY		4	2003	
MELTON				
ASFORDBY AMATEURS SPORTS CLUB		3	1988	
BELVOIR HIGH SCHOOL & COMMUNITY CENTRE		4	1973	2004
JOHN FERNELEY COLLEGE		4	1963	2005
KING EDWARD VII COMMUNITY SPORTS CENTRE	33 x 19	4	1997	
KING EDWARD VII COMMUNITY SPORTS CENTRE	33 x 17	4		
LONGFIELD HIGH SCHOOL	33 x 18	4	2010	
NORTH KESTEVEN				

Name of facility	Dimensions	FPM Courts	Year built	Year refurbished
BRANSTON COMMUNITY ACADEMY SPORTS CENTRE	33 x 17	4	1974	
NORTH KESTEVEN SPORTS CENTRE	35 x 20	4	1974	2008
NORTH KESTEVEN SPORTS CENTRE	20 x 15			
NORTHGATE SPORTS HALL	33 x 18	4	1997	
RAF COLLEGE CRANWELL		6	1999	
RAF WADDINGTON	33 x 27	6	2003	
SIR ROBERT PATTINSON ACADEMY	33 x 17	4	1985	2004
ST GEORGES ACADEMY (SLEAFORD SITE)	33 x 18	4	1998	2010
ST GEORGES ACADEMY (SLEAFORD SITE)		3		
SOUTH KESTEVEN				
BOURNE GRAMMAR SCHOOL		3	1993	
BOURNE LEISURE CENTRE	33 x 17	4	1990	
DEEPINGS LEISURE CENTRE	33 x 17	4	1974	2007
GRANTHAM MERES LEISURE CENTRE	34 x 27	6	1998	
GRANTHAM MERES LEISURE CENTRE		4		
KESTEVEN & GRANTHAM GIRLS SCHOOL	33 x 17	4	2004	
NEW COLLEGE STAMFORD		4	1995	
POWERSPORT HEALTH AND FITNESS CENTRE		4	0	2011
PRIORY RUSKIN ACADEMY (MANTHORPE SITE)	33 x 17	4	2006	
STAMFORD BOYS SCHOOL		4	1985	
STAMFORD BOYS SCHOOL				
STAMFORD JUNIOR SCHOOL		4	1986	
WITHAM HALL SCHOOL		4	1904	1995
WEST LINDSEY				
CAISTOR SPORTS HALL	33 x 16	3	1996	
CAISTOR SPORTS HALL	18 x 12			
CHERRY WILLINGHAM COMMUNITY SCHOOL	34 x 18	4	2001	
DE ASTON SPORTS CENTRE	33 x 17	4	1970	1988
DE ASTON SPORTS CENTRE				
TRENT VALLEY ACADEMY	33 x 18	4	2009	
WEST LINDSEY LEISURE CENTRE	33 x 17	4	1990	2009
WILLIAM FARR CHURCH OF ENGLAND COMPREHENSIVE SCHOOL	33 x 17	4	1995	2012
WILLIAM FARR CHURCH OF ENGLAND COMPREHENSIVE SCHOOL	18 x 10			

Appendix 3: FPM Model Description, Inclusion Criteria and Model Parameters

Included within this appendix are the following:

- A. Model description
- B. Facility Inclusion Criteria
- C. Model Parameters

A. Model Description

Background

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

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.

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.

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.

¹ Award made in 2007/08 year.

How the model works

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.

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.

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.

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.

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.

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

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 make up of the population, this will affect the number of visits an area will generate. In order to reflect the different population make up 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

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 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)

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.

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.

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.

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.

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.

Facility Attractiveness – for halls and pools only

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.

Attractiveness weightings are based on the following:

1. 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.
2. 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.
3. 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.

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.
4. 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

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".

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.

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

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.)

The comfort factor is used in two ways;

1. 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.
2. 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)

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

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%.

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.

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

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%.

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

Travel times Catchments

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.

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.

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.

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.

Minutes	Sport halls		Swimming Pools	
	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 used as a guide.