



Creating a lifelong sporting habit

Strategic Assessment of need for  
Sports Hall Provision in Nuneaton and Bedworth Borough Council

Facilities Planning Model

National Run

2015 Profile Report

Date of report

June 2015

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## 1. Introduction

- 1.1. This report and the accompanying maps provide a strategic assessment of the current level of provision for Sports Hall in Nuneaton and Bedworth BC (the Authority) this assessment uses Sport England's Facilities Planning Model and the data from National Facilities Audit run as of February 2015.
- 1.2. The information contained within the report should be read alongside the two appendices. Appendix 1 sets out the facilities that have been included within this analysis together with those that have been excluded. Appendix 2 provides background to the Facilities Planning Model (FPM), facility inclusion criteria and the model parameters.
- 1.3. The FPM modelling and dataset builds in a number of assumptions as set out in Appendix 2 regarding the supply and demand of provision. This report should not be considered in isolation and it is recommended that this analysis should form part of a wider assessment of provision at the local level, using other available information and knowledge.

## 2. Supply of Sports Halls

Supply of Sports Halls	Nuneaton and Bedworth	England	West Midlands Region	Warwickshire County
Number of halls	11	5,549	577	55
Number of hall sites	9	3,980	409	45
Supply of total hall space in courts	42.20	23,776.70	2,627.10	254.20
Supply of publicly available hall space in courts (scaled with hrs avail in pp)	33.78	16,871.29	1,787.10	195.48
Supply of total hall space in VPWPP	9,223	4,605,864	487,877	53,365
Courts per 10,000	3.31	4.35	4.56	4.57

Table 1

Name of Facility	Type	Area (m <sub>2</sub> )	Year Built	Year Refurb	Hours in PP
ASH GREEN SCHOOL AND ARTS COLLEGE	Main	792	1963		33.0
ETONE SPORTS CENTRE	Main	729	1979	2004	40.5
GEORGE ELIOT SCHOOL	Main	912	2002		38.0
HIGHAM LANE SCHOOL	Main	1,008	1997		42.0
JUBILEE SPORTS CENTRE (NUNEATON)	Main	1,032	1978	2010	43.0
NICHOLAS CHAMBERLAINE TECHNOLOGY COLLEGE	Main	2,554	1988	2006	38.0
NICHOLAS CHAMBERLAINE TECHNOLOGY COLLEGE	Activity Hall				38.0
NICHOLAS CHAMBERLAINE TECHNOLOGY COLLEGE	Activity Hall				38.0

ST THOMAS MORE CATHOLIC SCHOOL AND TECHNOLOGY COLLEGE	Main	360	1997		20.0
THE NUNEATON ACADEMY SPORTS CENTRE	Main	996	2006		41.5
THE SPORT AND FITNESS CENTRE	Main	840	1990	2008	35.0

Table 2

- 2.1. There are 9 main halls which meet the model parameters located on 9 sites. Nicholas Chamberlaine Technology College has 2 activity halls which meet the model parameters in addition to the main hall.
- 2.2. 9 of the main halls are located at educational institutions (schools, colleges and higher education). Only one hall is a local authority facility (Jubilee Sports Centre Nuneaton).
- 2.3. 5 of the sites are operated on a pay as you play as you play basis and 5 sites are used by sports clubs or community associations.
- 2.4. All of the sites are managed in-house by the school, college or further education institution except Eton Sports Centre and the Nuneaton Academy Sports Centre which are managed by community organisations.
- 2.5. The map below shows the location of facilities across Nuneaton and Bedworth BC. The majority of the halls are located in the main settlement of Nuneaton together with two sites located in Bedworth and Ash Green.
- 2.6. The Borough has 3.31 courts per 10,000 residents which is lower than the county, regional and national figures.
- 2.7. There are 10 facilities which have been excluded from the audit, which are either under 459sqm, there is no data, are for private use or have been closed.

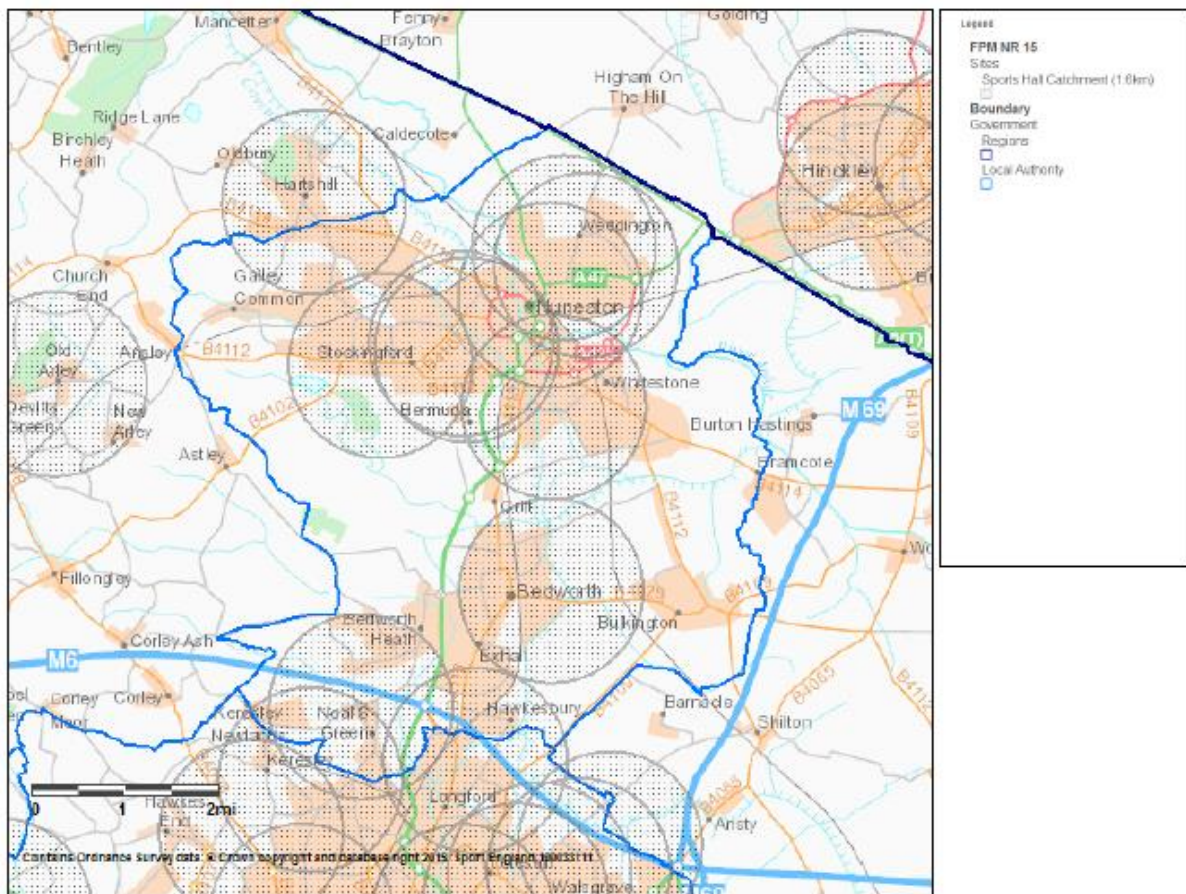
**NOTE on Sports halls:** "Supply of total hall space in courts" - this figure is NOT the count of 'marked courts' that will be found in Active Places. This figure is the 'equivalent in courts' to the total hall space that is used in the model to calculate the sites capacity. Hall capacity is calculated by the following:

For main halls the dimensions of the hall are checked against the recommended sizes in Sport England's design guidance to ensure the model uses the number of courts the hall could accommodate. For the vast majority of halls this figure will be the same as the recorded number of marked courts. However, in some instances there will be a difference e.g. a main hall might be recorded as having 5 courts marked out but its overall size when measured against the design guidance would only allow for 4 courts.

For ancillary halls the 'court equivalent' figure is based on the dimensions of the hall and the greater capacity they have in comparison to main halls. While a capacity of 20 people per 4 court hall is used as the base for calculating the capacity of main halls, the model calculates the capacity of ancillary halls based on 8 people per 144sqm (equivalent to 33 people in a four court hall). Therefore, alongside a main hall a site may have an ancillary hall totalling 180sqm with 1 court marked. However, based on the capacity figure for ancillary halls of 8 people per 144sqm this ancillary hall would have a capacity of 10 people, equivalent to half the capacity of a four court hall. Therefore, instead of using the marked court figure of 1 the model would calculate the supply of the ancillary hall in court space to be equivalent to 2 courts.

When all these calculated court values for the main and ancillary halls in a single area are added together there may well be a difference against the number of stated 'marked out courts'.

Location and catchment areas for Sports Halls in Nuneaton and Bedworth BC



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### 3. Demand for Sports Halls in Nuneaton and Bedworth BC

Demand	Nuneaton and Bedworth BC	England	West Midlands Region	Warwickshire County
Population	127,662.26	54,669,202.89	5,756,044.74	555,747.17
Visits demanded – vpwpp	8,587	3,705,101	388,036	36,836
Equivalent in courts – with comfort factor included	39.33	16,964.75	1,776.73	168.66
% of population without access to a car	21.20	24.90	24.10	16.70

Table 3

- 3.1. The population of Nuneaton and Bedworth BC creates a demand for around 8,587 visits per week in the peak period (vwpp).
- 3.2. The facility equivalent of this demand is 39.33 court equivalents (including the comfort factor). This figure ensures that any 'target' figure includes additional space so to make sure that the new facilities are not going to be 100% of their theoretical capacity.
- 3.3. The percentage of the population without access to a car in Nuneaton and Bedworth is lower than the regional average but higher than the average for Warwickshire. This reflects the largely urban character of Nuneaton and Bedworth BC when compared to Warwickshire as a whole.

#### 4. Supply & Demand Balance

Supply/Demand Balance	Nuneaton and Bedworth BC	West Midlands Region	Warwickshire County
Supply - Hall provision (courts) scaled to take account of hours available for community use	33.78	16,871.29	1,787.10
Demand - Hall provision (courts) taking into account a 'comfort' factor	39.33	16,964.75	1,776.73
Supply / Demand balance	-5.55	-93.46	10.37

Table 4

- 4.1. When looking at a very simplistic picture of the overall supply and demand across the Borough, the resident population is estimated to generate a demand for a minimum of 39.33 courts (scaled to take into account of hours available for community use). This compares to a current available supply of almost 34 courts giving a negative supply/demand balance of -5.55 courts. This simple supply/demand overview suggests that there is an under supply of courts within Nuneaton and Bedworth BC.
- 4.2. This simple supply/demand overview suggests that the difference in the supply of courts within Nuneaton and Bedworth BC is 15 courts below the average supply across Warwickshire County.

**Note:** This section only provides a 'global' view of provision and does not take account of the location, nature and quality of facilities in relation to demand; how accessible facilities are to the resident population (by car and on foot); nor does it take account of facilities in adjoining boroughs. These are covered in the more detailed modelling set out in the following sections (Satisfied Demand, Unmet Demand and Relative Share).



5. Satisfied Demand - demand from Nuneaton and Bedworth BC residents currently being met by supply

Satisfied Demand	Nuneaton and Bedworth BC	West Midlands Region	Warwickshire County
Total number of visits which are met	8,005	349,813	34,337
% of total demand satisfied	93.20	90.10	93.20
% of demand satisfied who travelled by car	77.41	76.60	82.28
% of demand satisfied who travelled by foot	14.23	14.27	11.63
% of demand satisfied who travelled by public transport	8.35	9.13	6.10
Demand Retained	5,909	345,856	28,348
Demand Retained - as a % of Satisfied Demand	73.80	98.90	82.60
Demand Exported	2,096	3,957	5,988
Demand Exported -as a % of Satisfied Demand	26.20	1.10	17.40

Table 5

- 5.1. The level of demand for halls which is satisfied in Nuneaton and Bedworth BC is high at 93.20%. This figure is in line with the county average and higher than the regional average.
- 5.2. 14% of the demand which is met is met by residents who walk and 8% by residents using public transport.
- 5.3. 74% of satisfied demand is retained in the Borough with 26% of the demand which is satisfied is met outside of the Borough (around one in four visits).

6. Unmet Demand - demand from Nuneaton and Bedworth BC residents not currently being met

Unmet Demand	Nuneaton and Bedworth BC	West Midlands	Warwickshire County
Total number of visits in the	583	38,223	2,499

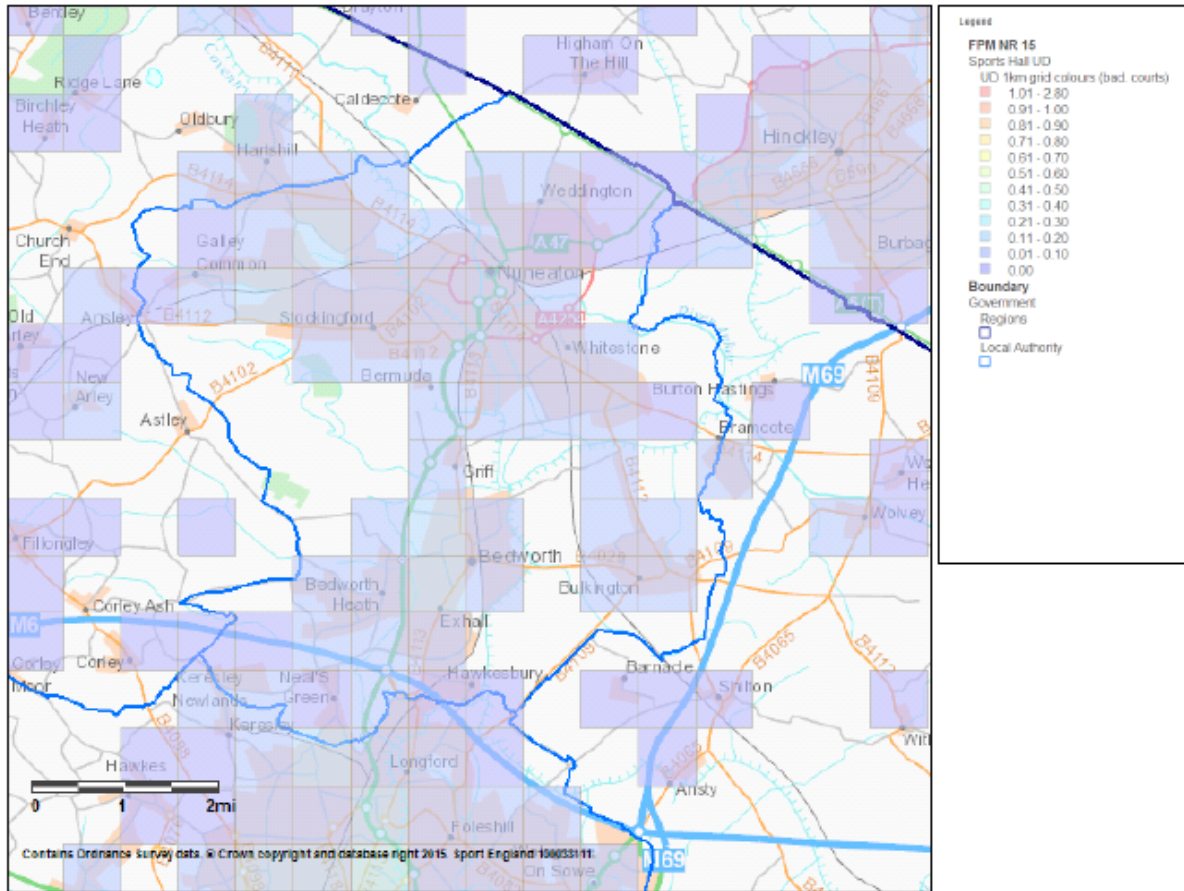
peak, not currently being met			
Unmet demand as a % of total demand	6.80	9.90	6.80
Equivalent in courts - with comfort factor	2.66	175.01	11.44
% of Unmet Demand due to:			
Lack of Capacity	14.20	23.20	8.30
Outside Catchment	85.76	76.84	91.66
% Unmet demand who do not have access to a car	85.76	76.84	91.66
% of Unmet demand who have access to a car	82.40	70.89	80.10
Lack of Capacity	3.36	5.95	11.56
% Unmet demand who do not have access to a car	14.20	23.20	8.30
% of Unmet demand who have access to a car	13.42	21.50	6.71

Table 6

- 6.1 The model estimates that the scale of unmet demand in Nuneaton and Bedworth BC is relatively low at 6.80% (or 583 vpwpp not currently being met). This translates to an amount of unmet demand equating to 2.66 courts (with comfort factor). This unmet demand is spread evenly across the borough with no 'hot spots' and therefore there are no obvious locations where a new sports hall is required.
- 6.2 The vast majority of the unmet demand (85.76%) is due to the percentage of residents who do not have access to a car.

## Facilities Planning Model - National Runs - Sports Halls 2015 Unmet Demand

Unmet Demand expressed as units of badminton courts (rounded to two decimal places). Data outputs shown thematically (colours) at either output area level or aggregated at 1km square (figure labels).



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## 7. Used Capacity - How well-used are the facilities?

Used Capacity	Nuneaton and Bedworth BC	England	West Midlands Region	Warwickshire County
Total number of visits used of current capacity	7,296	3,328,377	350,731	32,791
% of overall capacity of halls used	79.10	72.30	71.90	61.40
% of visits made to halls by walkers	14.90	15.80	14.20	12
% of visits made to halls by road	85.10	84.20	85.80	88
Visits Imported				
Number of visits imported	1,387	4,665	4,875	4,443
As a % of used capacity	19	0.10	1.40	13.50
Visits Retained				
Number of Visits retained	5,909	3,323,712	345,856	28,348
As a % of used capacity	81	99.90	98.60	86.50

Table 7

- 7.1. Used capacity measures the usage of the sports halls. The Sport England Facilities Planning Model is designed to include a 'comfort factor' and assumes that usage of a sports hall over 80% of capacity is busy; sports halls will be operating at an uncomfortable level above that percentage.
- 7.2. The total used capacity of Nuneaton and Bedworth BC's sports halls is 7,296 vpwpp and this represents an average usage of 79.10% of overall capacity of halls used across the borough. Overall the sports halls are operating at just below the 'Sports Hall full' Sport England comfort level of 80% of used total capacity.
- 7.3. However, the borough wide average of 79.10% of capacity used does vary by individual sports hall sites. Five halls are operating at 100% capacity (Etone Sports Centre, George Eliot School, Jubille Sports Centre, St Thomas Moore Catholic School and The Nuneaton Academy Sports Centre).
- 7.4. The Ash Green School and Arts College sports hall has the lowest sports hall used capacity in Nuneaton and Bedworth BC at 47%. This is likely to be due to the location of the sports hall which is outside of the main urban areas and the age of the facility which was built in 1963 and has never been refurbished. This is evidenced by the model attributing only a 26% attractiveness weighting to this sports hall.

7.5. As a percentage of used capacity 19% of visits are imported (approximately 1 in 5 visits) which is higher than the county average.

Capacity used for each hall	
Name of facility	% of capacity used
Ash Green School And Arts College	47%
Etone Sports Centre	100%
George Eliot School	100%
Higham Lane School	74%
Jubilee Sports Centre (Nuneaton)	100%
Nicholas Chamberlaine Technology College	60%
Nicholas Chamberlaine Technology College	
Nicholas Chamberlaine Technology College	
St Thomas More Catholic School And Technology College	100%
The Nuneaton Academy Sports Centre	100%
The Sport And Fitness Centre	74%

Table 8

## 8. Personal/Relative Share - equity share of facilities

Relative Share	Nuneaton and Bedworth BC	West Midlands Region	Warwickshire County
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	100	101.30	124
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	0	1.30	24

Table 9

- 8.1. The relative share of facilities for residents of Nuneaton and Bedworth BC (100) is neutral and lower than the county average suggesting that the access to sports halls in the Borough is at the national average.

**NOTES:** this helps to show which areas have a better or worse share of facility provision. It takes into account the size and availability of facilities as well as travel modes. It helps to establish whether residents within a particular area have less or more share of provision than other areas when compared against a national average figure which is set at 100.

Relative share is useful at looking at 'equity' of provision across local areas, but is also useful to give a higher level strategic view for a wider area.

## 9. Summary and Conclusions

- 9.1. The level of unmet demand for sports halls in Nuneaton and Bedworth BC is quite low at the equivalent of 2.66 courts (with comfort factor). This unmet demand is spread evenly across the borough with no 'hot spots' and therefore there are no obvious locations where a new sports hall is required.
  
- 9.2. Some facilities are being over utilised. The sports halls at Eton Sports Centre, George Eliot School, Jubilee Sports Centre (Nuneaton), St Thomas More Catholic School And Technology College and The Nuneaton Academy Sports Centre are all operating at 100%. This issue could be addressed by re-programming the activity and management of the sports programme at those facilities and making the facilities available for more hours in the peak period. Furthermore halls excluded from the FPM modelling could be reviewed to see if they could meet any demand. For example it may be that certain activities which currently take place in sports halls could take place in smaller facilities.

## Appendix 1 – Nuneaton and Bedworth BC Sports Halls Included/Excluded

### Facilities Included:

Name of facility	FPM courts	Site year built	Site year refurb	Weight factor
ASH GREEN SCHOOL AND ARTS COLLEGE	4	1963		25.5%
ETONE SPORTS CENTRE	3	1979	2004	78%
GEORGE ELIOT SCHOOL	4	2002		47.1%
HIGHAM LANE SCHOOL	4	1997		44.9%
JUBILEE SPORTS CENTRE (NUNEATON)	4	1978	2010	87.8%
NICHOLAS CHAMBERLAINE TECHNOLOGY COLLEGE	4	1988	2006	45.7%
NICHOLAS CHAMBERLAINE TECHNOLOGY COLLEGE	1	1988	2006	45.7%
NICHOLAS CHAMBERLAINE TECHNOLOGY COLLEGE	0	1988	2006	45.7%
ST THOMAS MORE CATHOLIC SCHOOL AND TECHNOLOGY COLLEGE	3	1997		44.9%
THE NUNEATON ACADEMY SPORTS CENTRE	4	2006		96.6%
THE SPORT AND FITNESS CENTRE	4	1990	2008	47.0%

### Facilities Excluded:

The audit excludes facilities that are privately used, too small to qualify or have closed. The following facilities meet one or more of these

Site name	Reason for exclusion
ALEC WILSON CENTRE	Too small
AMBLESIDE SPORTS CLUB	Too small
ASH GREEN SCHOOL AND ARTS COLLEGE	No FPM
EDWARD STREET DAYCARE CENTRE	Too small
KING EDWARD VI COLLEGE	Too Small. Private use
NUNEATON CLUB FOR YOUNG PEOPLE	Too Small
NUNEATON CLUB FOR YOUNG PEOPLE	Too Small
NUNEATON CLUB FOR YOUNG PEOPLE	Too Small
NUNEATON FIRE STATION	Too Small
STOCKINGFORD ALLOTMENT ASSOCIATION LTD	Too Small
THE CROWN INN	Too Small
THE NUNEATON ACADEMY (CLOSED)	Closed



## Appendix 2 – Model description, Inclusion Criteria and Model Parameters

Included within this appendix are the following:

1. Model description
2. Facility Inclusion Criteria
3. Model Parameters

### Model Description

#### 1. Background

- 1.1. The Facilities Planning Model (FPM) is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with SportsScotland and Sport England since the 1980s.
- 1.2. 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.

#### 2. Use of FPM

- 2.1. 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.
- 2.2. 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.
- 2.3. 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<sup>1</sup>.

### 3. How the model works

3.1. 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.

3.2. 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.

3.3. 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.

3.4. 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.

3.5. 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.

3.6. 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

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<sup>1</sup> Award made in 2007/08 year.

- STP User Survey - Sport England & SportsScotland
- Football participation - The FA
- Young People & Sport in England – Sport England
- Hockey Fixture data - Fixtures Live

#### 4. Calculating Demand

4.1. This is calculated by applying the user information from the parameters, as referred to above, to the population<sup>2</sup>. This produces the number of visits for that facility that will be demanded by the population.

4.2. 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)<sup>3</sup>.

4.3. 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.

#### 5. Calculating Supply Capacity

5.1. 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.

5.2. 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).

5.3. Based on travel time information<sup>4</sup> 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

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<sup>2</sup> For example, it is estimated that 7.72% of 16-24 year old males will demand to use an AGP, 1.67 times a week. This calculation is done separately for the 12 age/gender groupings.

<sup>3</sup> 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 171,300 OA's across England & Wales. An OA has a target value of 125 households per OA.

<sup>4</sup> 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.

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.

5.4. 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 oversupply 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.

5.5. 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

## 6. Calculating capacity of Sports Hall – Hall Space in Courts(HSC)

6.1. The capacity of sports halls is calculated in the same way as described above with each sports hall site having a capacity in VPWPP. In order for this capacity to be meaningful, these visits are converted into the equivalent of main hall courts, and referred to as 'Hall Space in Courts' (HSC). This "court" figure is often mistakenly read as being the same as the number of 'marked courts' at the sports halls that are in the Active Places data, but it is not the same. There will usually be a difference between this figure and the number of 'marked courts' that is in Active Places.

6.2. The reason for this, is that the HSC is the 'court' equivalent of the all the main and ancillary halls capacities, this is calculated based on hall size (area), and whether it's the main hall, or a secondary (ancillary) hall. This gives a more accurate reflection of the overall capacity of the halls than simply using the 'marked court' figure. This is due to two reasons:

6.3. In calculating capacity of halls, the model uses a different 'At-One-Time' (AOT) parameter for main halls and for ancillary halls. Ancillary halls have a great AOT capacity than main halls - see below. Marked Courts can sometimes not properly reflect the size of the actual main hall. For example, a hall may be marked out with 4 courts, when it has space for 5 courts. As the model uses the 'courts' as a unit of size, it is important that the hall's capacity is included as a 5 'court unit' rather than a 4 'court unit'

6.4. The model calculates the capacity of the sports hall as 'visits per week in the peak period' (VPWPP), it then uses this unit of capacity to compare with the demand, which is also calculated as VPWPP. It is often difficult to visualise how much hall space is when expressed as

vpwpp. To make things more meaningful this capacity in VPWPP is converted back into 'main hall court equivalents', and is called in the output table 'Hall Space in Courts'.

## 7. Facility Attractiveness – for halls and pools only

7.1. 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.

7.2. Attractiveness weightings are based on the following:

7.2.1. 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. 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.

7.2.2. 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.

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

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

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

7.4. 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.

## 8. Comfort Factor – halls

8.1. 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 =1user /6m<sup>2</sup> , halls = 5 users /court). This gives each facility a "theoretical capacity".

8.2. 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.

8.3. 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.)

8.4. The comfort factor is used in two ways;

8.4.1. 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.

8.4.2. 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.

## 9. Utilised Capacity (used capacity)

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

9.2. 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. 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.

9.3. For examples:

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. This should be seen only as a guide to help flag up when facilities are becoming busier, rather than a 'hard threshold'.

#### 10. 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 access is also taken into account, in areas of lower access to a car, 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.

Facility	Car	Walking	Public transport
Swimming Pool	76%	15%	9%
Sports Hall	77%	15%	8%
AGP Combined	83%	14%	3%

Football	79%	17%	3%
Hockey	96%	2%	2%

10.1. The model includes a distance decay function; where the further a user is from a facility, the less likely they will travel. The set out below is the survey data with 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 is often used as a rule of thumb for catchments for sports halls and pools.

Minutes	Sport halls		Swimming Pools	
	Car	Walk	Car	Walk
0-10	62%	61%	58%	57%
10-20	29%	26%	32%	31%
20 -40	8%	11%	9%	11%

10.2. For AGPs, there is a similar pattern to halls and pools, with Hockey users observed as travelling slightly further (89% travel up to 30 minutes). Therefore, a 20 minute travel time can also be used for 'combined' and 'football', and 30 minutes for hockey.

Artificial Grass Pitches						
Minutes	Combined		Football		Hockey	
	Car	Walk	Car	Walk	Car	Walk
0-10	28%	38%	30%	32%	21%	60%
10-20	57%	48%	61%	50%	42%	40%
20 -40	14%	12%	9%	15%	31%	0%

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



## Inclusion Criteria used within analysis

### Artificial Grass Pitch

The following inclusion criteria were used for this analysis:

- Include all outdoor, full size AGPs with a surface type of sand based, sand dressed, water based or rubber crumb – varied by sport specific runs.
- Include all Operational Pitches available for community use i.e. pay and play, membership, Sports Club/Community Association
- Exclude all Pitches not available for community use i.e. private use
- Include all 'planned', 'under construction, and 'temporarily closed' facilities only where all data is available for inclusion.
- Minimum pitch dimension taken from Active Places – 75m x45m.
- Non floodlit pitches exclude from all runs after 1700 on any day.
- Excludes all indoor pitches.
- Excludes 5-a-side commercial football centres and small sided 'pens'.
- Excludes MUGA's, redgra, ash, marked out tarmac areas, etc.
- Carpet types included:
  - Combined Run – all carpet types, using the sport run criteria below.
  - Hockey Run – all water based weekend/weekday, all sand based/sand dresses weekend only.
  - Football Run – all rubber crumb weekend/weekday, sand based/sand dressed weekday.

Facilities in Wales and the Scottish Borders included, as supplied by sportscotland and Sports Council for Wales.

## Model Parameters used in the Analysis

### AGP Parameters – Combined

	Parameter	Comments																					
Participation -% of age band	<table border="1"> <thead> <tr> <th></th> <th>0-15</th> <th>16-24</th> <th>25-34</th> <th>35-44</th> <th>45-54</th> <th>55+</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>3.37</td> <td>7.72</td> <td>4.93</td> <td>2.71</td> <td>1.26</td> <td>0.17</td> </tr> <tr> <td>Female</td> <td>3.16</td> <td>2.70</td> <td>0.94</td> <td>0.46</td> <td>0.18</td> <td>0.07</td> </tr> </tbody> </table>		0-15	16-24	25-34	35-44	45-54	55+	Male	3.37	7.72	4.93	2.71	1.26	0.17	Female	3.16	2.70	0.94	0.46	0.18	0.07	
	0-15	16-24	25-34	35-44	45-54	55+																	
Male	3.37	7.72	4.93	2.71	1.26	0.17																	
Female	3.16	2.70	0.94	0.46	0.18	0.07																	
Frequency - VPWPP	<table border="1"> <thead> <tr> <th></th> <th>0-15</th> <th>16-24</th> <th>25-34</th> <th>35-44</th> <th>45-54</th> <th>55+</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>1.81</td> <td>1.67</td> <td>1.27</td> <td>1.06</td> <td>1.07</td> <td>0.97</td> </tr> <tr> <td>Female</td> <td>1.02</td> <td>1.45</td> <td>1.34</td> <td>1.31</td> <td>1.21</td> <td>1.32</td> </tr> </tbody> </table>		0-15	16-24	25-34	35-44	45-54	55+	Male	1.81	1.67	1.27	1.06	1.07	0.97	Female	1.02	1.45	1.34	1.31	1.21	1.32	Football 75.2% Hockey 22.7% Nuneaton and Bedworth 2.1%
	0-15	16-24	25-34	35-44	45-54	55+																	
Male	1.81	1.67	1.27	1.06	1.07	0.97																	
Female	1.02	1.45	1.34	1.31	1.21	1.32																	
Peak Period	Monday-Thursday = 17.00 – 21.00 Friday = 17.00 – 19.00 Saturday = 9.00 – 17.00 Sunday = 9.00 – 17.00  Total Peak Hours per week = 34 hrs Total number of slots = 26 slots  Percentage of demand in peak period = 85%	Mon-Friday = 1 hr slots to reflect mixed use of activities – training, 5/7 a side & Informal matches  Weekend = 2 hrs slots to reflect formal matches.																					
Duration	Monday - Friday = 1 hr Saturday & Sunday = 2 hrs																						
At one time capacity	30 players per slot Mon to Fri; 25 players per slot Sat & Sun 30 X 18slots = 540 visits 25 X 8slots = 200 visits Total = 740 visits per week in the peak period	Saturday and Sunday capacity to reflect dominance of formal 11-side matches i.e. lower capacity																					

Catchments	<p><u>Overall catchment for all users</u></p> <p>82% travelling 20 minutes or less during week – within a distance decay function of the model</p> <p><u>Users by travel mode</u></p> <p>81% Car borne</p> <p>15% Walk</p> <p>4% Public Transport</p> <p>NOTE: Catchment times are indicative, within the context of a distance decay function of the model. See note on Travel Time Catchments in Appendix.</p>	
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