



Creating a lifelong sporting habit

Strategic Assessment of need for  
Pool 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 Pools 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 excluded within this analysis. 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 Pools

Supply of Pools	Nuneaton and Bedworth	England	West Midlands Region	Warwickshire County
Number of pools	5	3,053	298	34
Number of pool sites	3	2,156	219	25
Supply of total water space in sqm	1,154	681,427	66,378	7,334
Supply of publicly available water space in sqm (scaled with hrs avail in pp)	1,129.68	567,268.52	52,757.89	6,556.27
Supply of total water space in VPWPP	9,794	4,918,218	457,411	56,843
Water space per 1,000	9.04	12.46	11.53	13.20

Table 1

Name of Facility	Type	Area (m <sub>2</sub> )	Year Built	Year Refurb	Hours in PP
Nuneaton Fitness & Wellbeing Centre	Main/General	160	2001		51
Bedworth Leisure Centre	Main/General	312.5	1975	2000	51
Bedworth Leisure Centre	Learner/Teaching/Training	70	1975	2000	41
Pingles Leisure Centre	Main/General	412.5	2003		52
Pingles Leisure Centre	Leisure Pool	200	2003		52

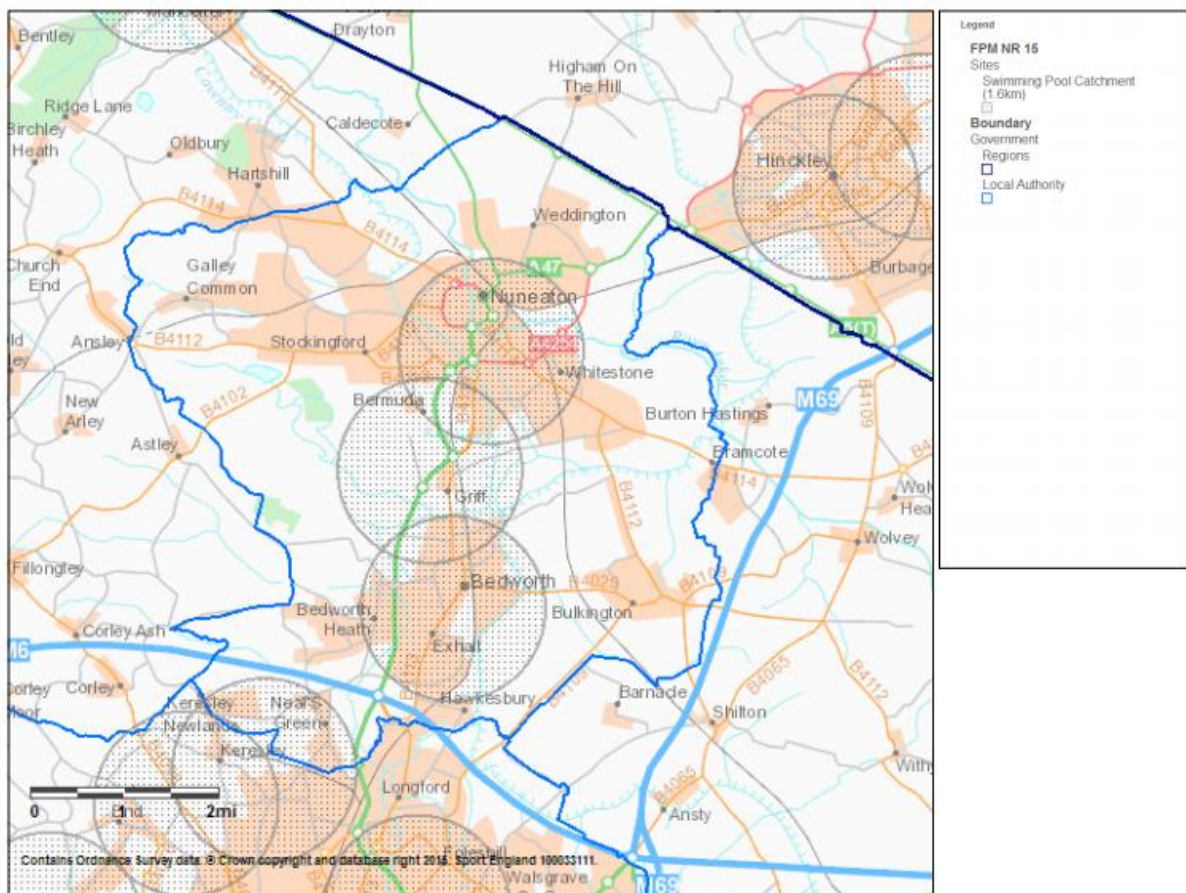
Table 2

2.1. There are 5 pools which meet the model parameters located on 3 sites. The Bedworth Leisure Centre (refurbished in 2000) and Pingles Leisure Centre (constructed in 2003) are both local authority owned facilities and both contain two pools. The Pingles

has the largest pool space in the Borough (412.5 sqm and 200sqm). The Nuneaton Fitness and Well Being Centre is a private facility with a smaller pool (160sqm).

- 2.2. The Bedworth and Pingles Leisure Centres are both commercially operated with the Nuneaton Fitness and Well Being Centre operated as a private facility.
- 2.3. The map below shows the location of facilities across Nuneaton and Bedworth BC. The Pingles Leisure Centre is located within the urban area of Nuneaton, the Nuneaton Fitness and Well Being Centre is located on a commercial area on the edge of Nuneaton and the Bedworth Leisure Centre is located in the urban area of Bedworth.
- 2.4. Nuneaton and Bedworth BC provides 9 sqm of waterspace per 1,000 population, which is lower than the county and regional average.
- 2.5. There is only one facility which has been excluded from the audit; the Lido at the Pingles Leisure Centre which does not meet the criteria for inclusion.

Location and catchment areas for Pools in Nuneaton and Bedworth BC



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### 3. Demand for Pools in Nuneaton and Bedworth BC

Demand	Nuneaton and Bedworth BC	England	West Midlands Region	Warwickshire County
Population	127,662	54,669,203	5,756,045	555,747
Swims demanded – vpwpp	8,113	3,485,064	364,949	34,818
Equivalent in water space – with comfort factor included	1,346.39	578,371.40	60,565.86	5,778.35
% 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 8,113 visits per week in the peak period (vpwpp).
- 3.2. The water space equivalent of this demand is 1,346 sqm (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 more 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 - Swimming pool provision (sqm) scaled to take account of hours available for community use	1,129.68	567,268.52	52,757.89
Demand - Swimming pool provision taking into account a 'comfort' factor	1,346.39	578,371.40	60,565.86
Provision available compared to the minimum required to meet demand	-216.71	-11,102.88	-7,807.97

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 1,346.39 sqm of water space. This compares to a current available supply of 1,129.68 sqm of water space giving a negative supply/demand balance of -216.71 sqm. This simple supply/demand overview suggests that there is an under supply of water space within Nuneaton and Bedworth BC. This under supply compares to a four lane 25m 'community' swimming pool (a 25m four lane 'community' swimming pool equates to 212 sqm of water space).
- 4.2. This simple supply/demand overview suggests that there is also an undersupply of water space in Warwickshire and a large undersupply in the region as a whole.

**Note** – For realistic/ comfortable provision, supply needs to be greater than demand. If supply only matches demand, then all pools would need to be full all of the time in order to meet all demand.

**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	7,449	3,184,310	331,221
% of total demand satisfied	91.80	91.40	90.80
% of demand satisfied who travelled by car	82.10	75.65	77.98
% of demand satisfied who travelled by foot	9.32	14.84	12.12
% of demand satisfied who travelled by public transport	8.58	9.51	9.90
Demand Retained	6,372	3,182,427	327,309
Demand Retained - as a % of Satisfied Demand	85.50	99.90	98.80
Demand Exported	1,076	1,882	3,912
Demand Exported -as a % of Satisfied Demand	14.50	0.10	1.20

Table 5

- 5.1. The level of total satisfied demand in Nuneaton and Bedworth BC is high at 91.80%. This figure is slightly higher than the county average and higher than the regional average.
- 5.2. 9% of the demand which is met is met by residents who walk and only 8.5% by residents using public transport.
- 5.3. A relatively high level of satisfied demand is retained in the Borough (85.50%) whilst 14.50% of the demand which is satisfied is met outside of the Borough (around 1 in 7 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 peak, not currently being met	664	33,727	2,373
Unmet demand as a % of total demand	8.20	9.20	6.80
Equivalent in water space (m <sup>2</sup> ) - with comfort factor	110.26	5,597.28	393.90
% of Unmet Demand due to:			
Lack of Capacity	89.70	77.90	93.80
Outside Catchment	89.70	77.90	93.80
% Unmet demand who do not have access to a car	80	64.87	74.49
% of Unmet demand who have access to a car	9.72	12.99	19.27
Lack of Capacity	10.30	22.10	6.20
% Unmet demand who do not have access to a car	7.63	18.50	3.65
% of Unmet demand who have access to a car	2.65	3.64	2.59

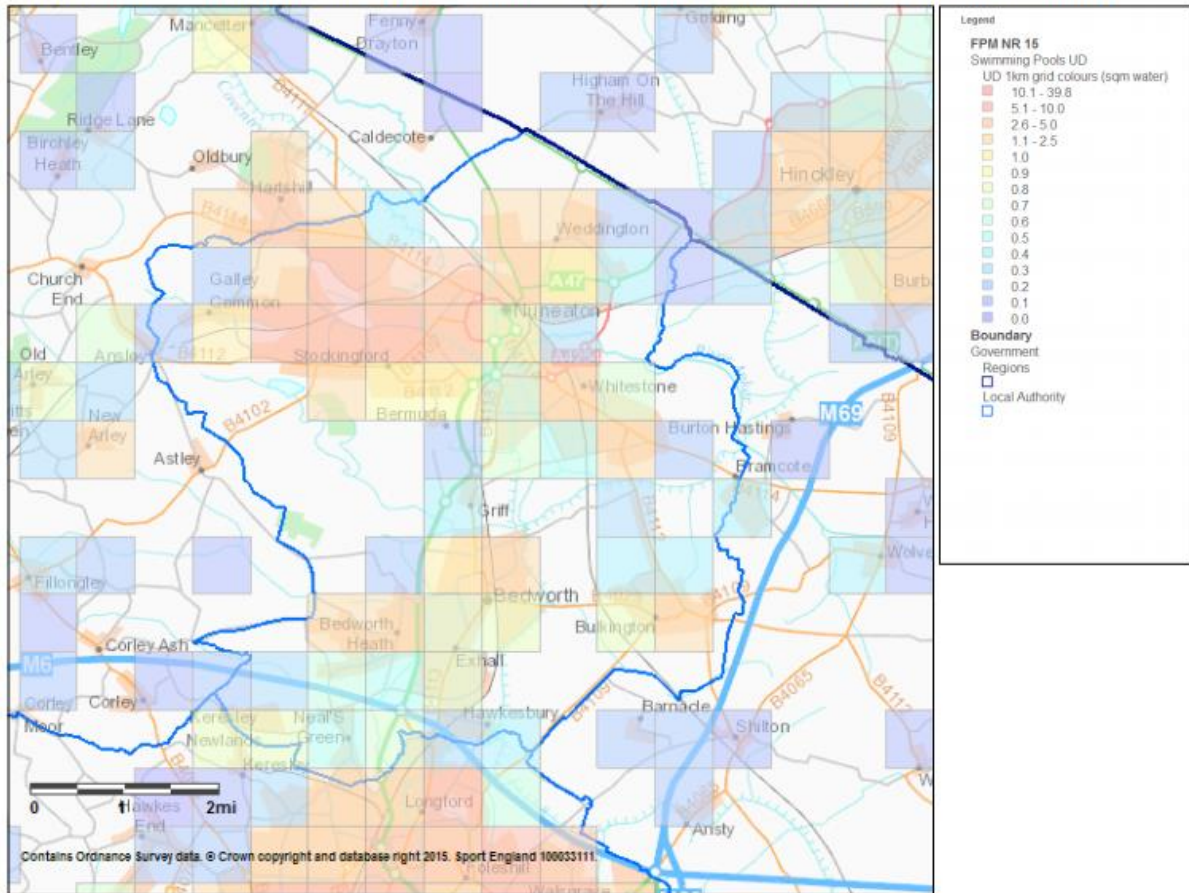
Table 6

6.1 The model estimates that the scale of unmet demand in Nuneaton and Bedworth BC is 8.20%. This translates to an amount of unmet demand equating to 110.26 sqm (with comfort factor) which is approximately half of a four lane 25m pool. There are some areas of higher unmet demand within the edges of the urban area of Nuneaton (particularly the western and northern sides) within Bedworth.

6.2 The majority of the unmet demand (89.70%) is due to residents being located outside the catchment area for pools and without access to a car (80%).

## Facilities Planning Model - National Runs - Swimming Pools 2015 Unmet Demand

Unmet Demand expressed as square metres of water (round 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	9,093	3,184,596	332,365	34,336
% of overall capacity of pools used	92.80	64.80	72.70	60.40
% of visits made to pools by walkers	7.60	14.80	12.10	8.70
% of visits made to pools by road	92.40	85.20	87.90	91.30
Visits Imported				
Number of visits imported	2,721	2,168	5,056	6,525
As a % of used capacity	29.90	0.10	1.50	19
Visits Retained				
Number of Visits retained	6,372	3,182,427	327,309	27,811
As a % of used capacity	70.10	99.90	98.50	81

Table 7

- 7.1. Used capacity measures the usage of the swimming pools. The Sport England Facilities Planning Model is designed to include a 'comfort factor' and assumes that usage of a swimming pool over 70% of capacity is busy; swimming pools will be operating at an uncomfortable level above that percentage.
- 7.2. The total used capacity of Nuneaton and Bedworth BC's swimming pools is 9,093 vpwpp and this represents an average usage of 92.80% of overall capacity of swimming pools used across the borough. Overall the swimming pools are operating at a very high level of 22.80% higher than the Sport England swimming pool comfort level of 70% of used total capacity.
- 7.3. However, the borough wide average of 92.80% of capacity used does vary by individual swimming pool sites. The Pingles Leisure Centre and Nuneaton Fitness & Wellbeing Centre are operating at 100% and the Bedworth Leisure Centre is operating at 78%.
- 7.4. As a percentage of used capacity 29.90% of visits are imported (approximately 1 in 3 visits) which is higher than the county average.

Capacity used for each swimming pool

Name of facility	% of capacity used
Nuneaton Fitness & Wellbeing Centre	100%
Bedworth Leisure Centre	78%
Bedworth Leisure Centre	
Pingles Leisure Centre	100%
Pingles Leisure Centre	

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)	75.20	84.10	120.40
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	-24.80	-15.90	20.40

Table 9

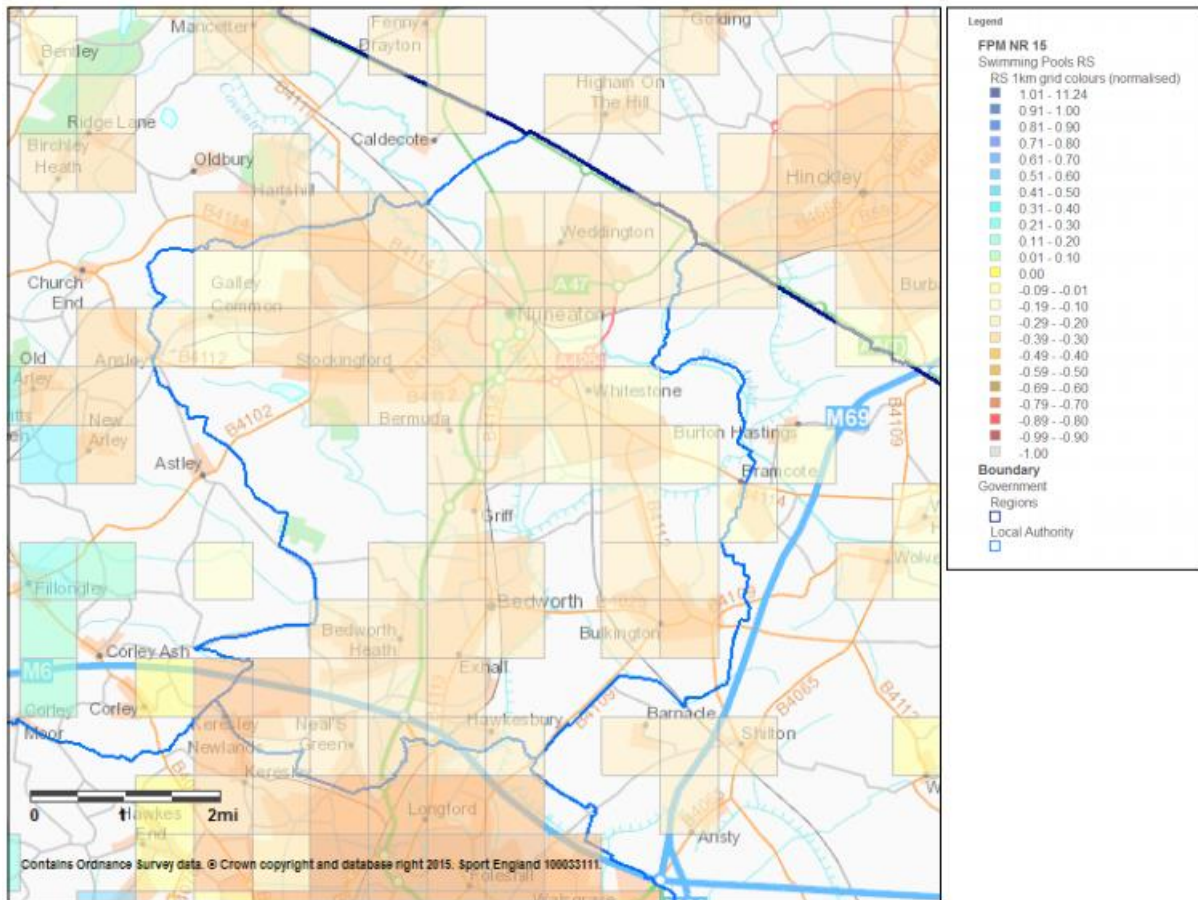
- 8.1. The relative share of facilities for residents of Nuneaton and Bedworth BC (-24.80) is negative and low compared to the county average suggesting that there are some deficiencies in access to swimming pools in the Borough.
- 8.2. The map below shows relative share of facilities in Nuneaton and Bedworth BC. There appears to be a fairly even spread of relative share across the borough with no particular 'hot spots'.

**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.

## Facilities Planning Model - National Runs - Swimming Pools 2015 Relative Share

Share of water divided by demand made relative to the National Average for this run (1.12 sqm per visit per week). Data outputs shown thematically (colours) at either output area level or aggregated at 1km square (figure labels).



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## 9. Summary and Conclusions

- 9.1. Overall satisfied demand is high at 91.80%, although almost 15% of this satisfied demand is exported to facilities in neighbouring authorities. Most of the unmet demand (almost 90%) is due to residents living outside of the catchment area of a pool with no access to a car.
- 9.2. There are pockets of the Borough which have higher levels of unmet demand compared to the Borough average. The area west of Nuneaton has the highest level of unmet demand. The level of unmet demand across the whole of the Borough is only the equivalent of half of a four lane 25m pool and does not appear to justify the provision of a new pool. However further locally specific FPM modelling would provide further information in this regard.
- 9.3. Both of the local authority owned pools (The Pingles Leisure Centre and Bedworth Leisure Centre) are both operating at 100%. This over utilisation could be addressed by assessing the quality of the facilities, the management options and the pool programming. Furthermore a high level of visits are imported from neighbouring authorities and this issue could be addressed if it is not desirable.



## Appendix 1 – Nuneaton and Bedworth BC Swimming Pools Excluded

### 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 .

<b>Site name</b>	<b>Reason for exclusion</b>
PINGLES LEISURE CENTRE	LIDO

## 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.

	Sport halls		Swimming Pools	
Minutes	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						
	Combined		Football		Hockey	
Minutes	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	<u>Overall catchment for all users</u> 82% travelling 20 minutes or less during week – within a distance decay function of the model  <u>Users by travel mode</u> 81% Car borne 15% Walk																						

	<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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