Strategic Assessment for Provision for Swimming Pools Warwick District Council

Sport England's Facilities Planning Model Report

Date of report
August 2017

Contents

1. Introduction

1.1 Warwick District Council is updating its indoor sports and recreational facilities strategy and as part of that work, it also wishes to update the evidence base for swimming pool provision. The Council has commissioned a facility planning model (fpm) to develop and provide an evidence base for swimming pools.

1.2 In the fpm work there are two assessments (known as runs) and these also include the swimming pool provision in the neighbouring authorities to Warwick District. The swimming pool supply and their catchment areas will impact on the supply, access and distribution of swimming demand across Warwick District.

1.3 This fpm report set out the findings from the assessment The fpm separate modelling runs are:

- Run 1 – supply, demand and access to swimming pools, based on the baseline position in 2017. An assessment of the current position from which to measure change

- Run 2 – supply, demand and access to swimming pools, based on the projected population growth between 2017 and 2029. This run also includes the location and scale of the major residential development that will be developed in the District up to 2029. Run 2 provides an assessment of the impact population growth and residential development has on the supply, demand and access to swimming pools in 2029

1.4 Reference to Warwick from now on refers to the District and it where there are findings specific to Warwick town, these will be referenced as such.

The study area

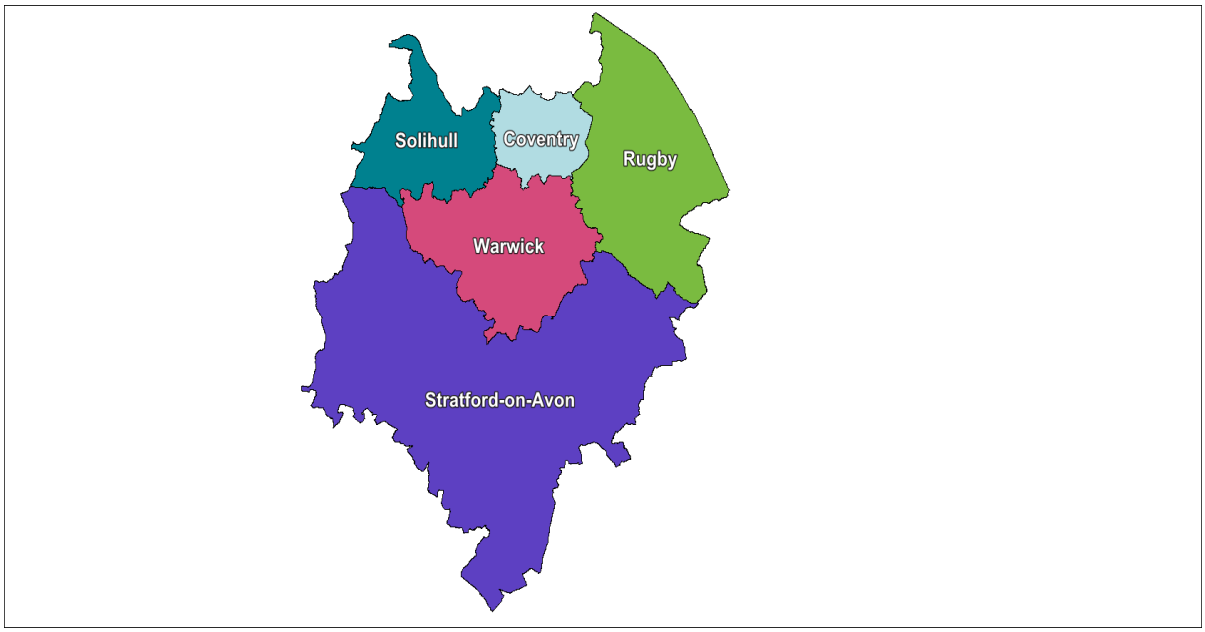
1.5 Customers of swimming pools do not reflect local authority boundaries and whilst there are management and pricing incentives for customers to use sports facilities located in the area in which they live, there are some big determinants as to which swimming pools people will choose to use.

1.6 These are based on: how close the venue is to where people live; other facilities on the same site, such as a gym; the programing of the pool with swimming activities that appeal and available at times which fit with the lifestyle of residents; and the age and condition of the facility and inherently its attractiveness.

1.7 Consequently, in determining the position for Warwick it is very important to take full account of the swimming pools in the neighbouring local authorities to Warwick. In particular, to assess the impact of overlapping catchment areas of facilities located inside the District and those located outside the authority. The nearest facility for some Warwick residents may be outside the authority (known as exported demand) and for some residents of neighbouring authorities their nearest swimming pool is in ide the District. (Known as imported demand).

1.8 To take account of these impacts a study area is established which places Warwick District at the centre of the study and includes all the neighbouring authorities. A map of the study area is set out below.

Map 1.1: Study area map for the Warwick District swimming pools study



Report structure, content and sequence

1.9 The findings for Warwick for runs 1 - 2 are set out in a series of tables with the difference in findings between the runs set out. This allows a "read across" to see the impact of the specific changes in each run.

1.10 The headings for each table are: total supply; total demand; supply and demand balance; satisfied demand; unmet demand; used capacity (how full the facilities are); and local share. Maps to support the findings on swimming pool locations, total demand met demand, unmet demand and the drive and walking catchment areas of the swimming pools are also included.

1.11 An executive summary of key findings is set out at the end of the report.

1.12 Appendix 1 sets out the swimming pools included in the assessment. Appendix 2 is a description of the facility planning model and its parameters.

2. Swimming Pool Supply

Total Supply

Table 2.1: Swimming Pools Supply Warwick 2017 and 2029

Warwick	RUN 1	RUN 2
Total Supply	**2017**	**2029**
Number of pools	10.	10.
Number of pool sites	7.	7.
Supply of total water space in sq m	2,116.	2,116.
Supply of water space in sq m, scaled by hours available in the peak period	1,753.	1,753.
Supply of total water space in visits per week peak period	15,197.	15,197.
Water space per 1,000 population	15.	13.

2.1 Definition of supply – this is the supply or capacity of the swimming pools which are available for public and club use in the weekly peak period. The supply is expressed in number of visits that a pool can accommodate in the weekly peak period and in sq metres of water.

2.2 In runs 1 – 2 there are 10 swimming pools on 7 sites and the total amount of water space is 2,116 sq metres of water in both runs. (Note for context a 25m x 4 lane pool is between 210 and 250 sq metres of water, depending on lane width).

2.3 This is the total water space and when this assessed based on the amount of water space available for community use across all the swimming pools sites – known as the effective supply - this reduces to the 1,753 sq metres of water in both runs.

2.4 The impact of the variable hours for community use at the education pool site at Warwick School, plus the commercial swimming pool sites, which provide some community use but for the centre membership only and for recreational swimming and possibly learn to swim programmes, is creating a difference. The difference being 363 sq metres of water between the total and effective supply of water space available for community use. It is not really an option to consider increasing access to the commercial pool stock for recreational public pay and swim activity.

2.5 The details of all the swimming pool sites is set out in Table 2.2.

Table 2.2: Runs 1 – 5 Swimming pools Warwick District 2017 and 2031

Name of Site	Type	Dimensions	Area	Site Year Built	Site Year Refurb	Car % Demand	Public Tran % Demand	Walk % Demand
WARWICK						**81%**	**8%**	**11%**
ABBEY FIELDS SWIMMING POOL	Main/General	25 x 10	250	1986	2004	80%	7%	14%
NEWBOLD COMYN LEISURE CENTRE	Main/General	25 x 13	325	1990	2017	80%	10%	9%
NEWBOLD COMYN LEISURE CENTRE	Leisure Pool	23 x 10	230					
NUFFIELD HEALTH (WARWICK)	Main/General	20 x 8	160	2001		84%	8%	7%
NUFFIELD HEALTH (WARWICK)	Learner/Teaching/ Training	9 x 9	81					
PURE HEALTH CLUB	Main/General	15 x 12	180	2007		74%	5%	20%
ST NICHOLAS PARK LEISURE CENTRE	Main/General	25 x 13	325	1983	2017	80%	7%	13%
THE WARWICKSHIRE GOLF AND COUNTRY CLUB	Main/General	20 x 10	200	2005		94%	5%	1%
THE WARWICKSHIRE GOLF AND COUNTRY CLUB	Leisure Pool	10 x 4	40					
WARWICK SCHOOL SPORTS CENTRE	Main/General	25 x 13	325	1988		84%	8%	8%

2.6 The average age of the Warwick swimming pool sites in 2017 is 22 years. Four pool sites were opened before 200 and three of these have been modernised; St Nicholas Park Leisure Centre 1983 and modernised in 2017; Abbey Fields Swimming Pool 1986 and modernised in 2004; and Newbold Comyn Leisure Centre 1990 and also modernised in 2017. Warwick School pool , 1988 is the only pre 2000 pool which has not had a major modernisation.

2.7 The three commercial pools have all opened post 2000: Nuffield Health Warwick in 2001, the Warwickshire Golf and Country Club 2005; and the most recent swimming pool to open in the District is the Pure Health Club pool in 2007.

2.8 Facilities are only part of an explanation as to why swimming participation may decrease. However, Sport England research does show provision of modern swimming pools with proactive swimming development programmes does increase participation.

2.9 The scale of the public leisure centre pools and thereby the swimming pool offer is very good. There are main pools at each of the three public leisure centre pool sites, these being 25m x 6 lane pools at Newbold Comyn and St Nicholas and 25m x 4 lanes at Abbey Fields. In addition, there is a free form leisure pool at Newbold Comyn. So all three public swimming pool sites are of a scale to provide for the full range of swimming activities of: learn to swim; public recreational swimming; lane and fitness swimming activities and swimming development through clubs.

Comparative measure of provision

2.10 A comparative measure of swimming pool provision is water space per 1,000 population and Warwick has 15 sq metres of water per 1,000 population in 2017 and this reduces to 13 sq metres of water in 2029, with the impact of the increase in population 2017 – 2029.

2.11 How Warwick compares with the neighbouring authorities based on this measure, is set out in Table 2.3. In both years Warwick is mid table in comparison with the neighbouring authorities. The highest provision in both years is in Solihull at 18 sq metres of water per 1,000 population in 2017 and 16.9 sq metres of water in 2029.The lowest provision in both years is in Coventry at 10.5 sq metres of water and then 9.9 sq metres of water per 1,000 population.

2.12 The West Midlands Region and England wide findings for 2017 are both 12 sq metres of water per 1,000 population and both reduce to 11 sq metres of water per 1,000 population in 2029.

2.13 These findings are set out because some local authorities like to see how their quantitative provision compares with elsewhere. It is not setting a standard of provision.

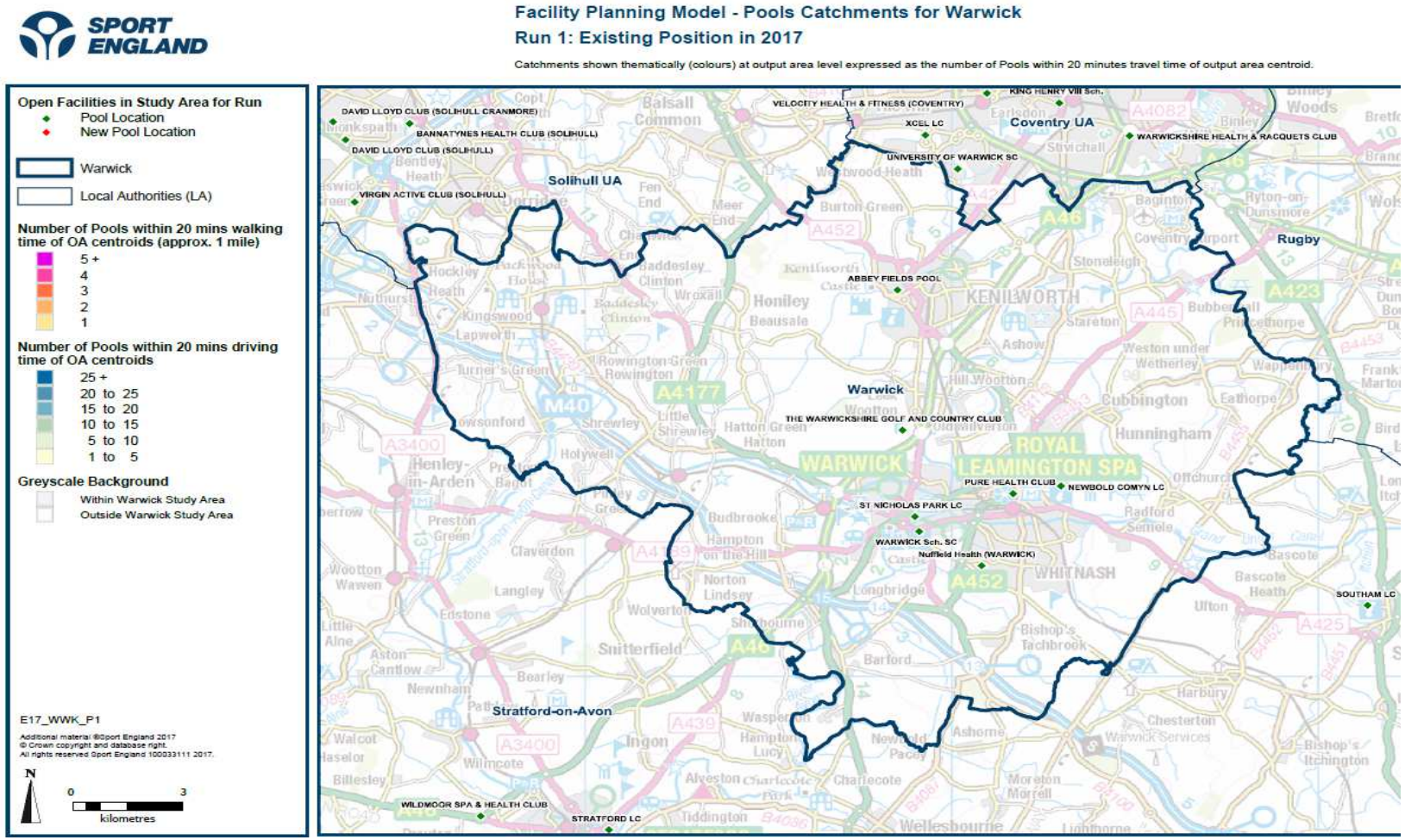
Table 2.3. Water space per 1,000 population for all authorities 2017 - 2029

Water space per 1,000 population	RUN 1	RUN 2
	2017	2029
Warwick	**15.0**	**13.0**
Coventry	10.5	9.9
Solihull	18.1	16.9
Rugby	15.3	14.0
Stratford-on-Avon	13.8	13.1

Pool Locations

2.14 Map 2.1 overleaf shows the location of swimming pools across Warwick for both runs. The pool locations and catchment areas are important in determining the amount of demand which is inside and outside the catchment area of each pool site. As Map 2.1 shows, the pool locations are clustered in Warwick town and Leamington Spa with the Abbey Fields pool in Kenilworth being the only pool location outside this area.

Map 2.1: Run 4 Location of swimming pools in Warwick District 2017.



3. Demand for Swimming Pools

Table 3.1: Demand for Swimming Pools Warwick District 2017 and 2029

Warwick	RUN 1	RUN 2
Total Demand	**2017**	**2029**
Population	141,109.	168,811.
Swims demanded – visits per week peak period	8,995.	10,496.
Equivalent in water space – with comfort factor included	1,493.	1,742.
% of population without access to a car	17.6	17.6

3.1 Definition of total demand – it represents the total demand for swimming by both genders and for 14 five-year age bands from 0 to 65+. This is calculated as the percentage of each age band/gender that participates. This is added to the frequency of participation in each age band/gender, so as to arrive at a total demand figure, which is expressed in visits in the weekly peak period. Total demand is also expressed in sq metres of water.

3.2 The population in Warwick District in 2017 is 141,109 people and it is projected to increase to 168,811 people by 2029.This represents an increase of 27,702 people over the 12 year period, a 19.6% increase between the two years.

3.3 The total demand for swimming by Warwick residents in 2017 is 8,995 visits per week in the weekly peak period and this is projected to increase to 10,496 visits by 2029. This is an increase of 1,501 visits per week in the peak period or 16.6%.

3.4 So the projected 19.6% increase in population between 2017 and 2029 is projected to generate a 16.6% increase in demand for swimming.

3.5 The total demand in 2017 equates to 1,493 sq metres of water and in 2029 it is 1,742 sq metres of water. The increase in demand of 249 sq metres of water equates to a 25m x 4 lane community size swimming pool which is between 210 – 250 sq metres of water, depending on lane width.

3.6 This is NOT to say this is what is required, because it is only setting out the increase in demand and this has not yet been compared with the supply of water space across Warwick.

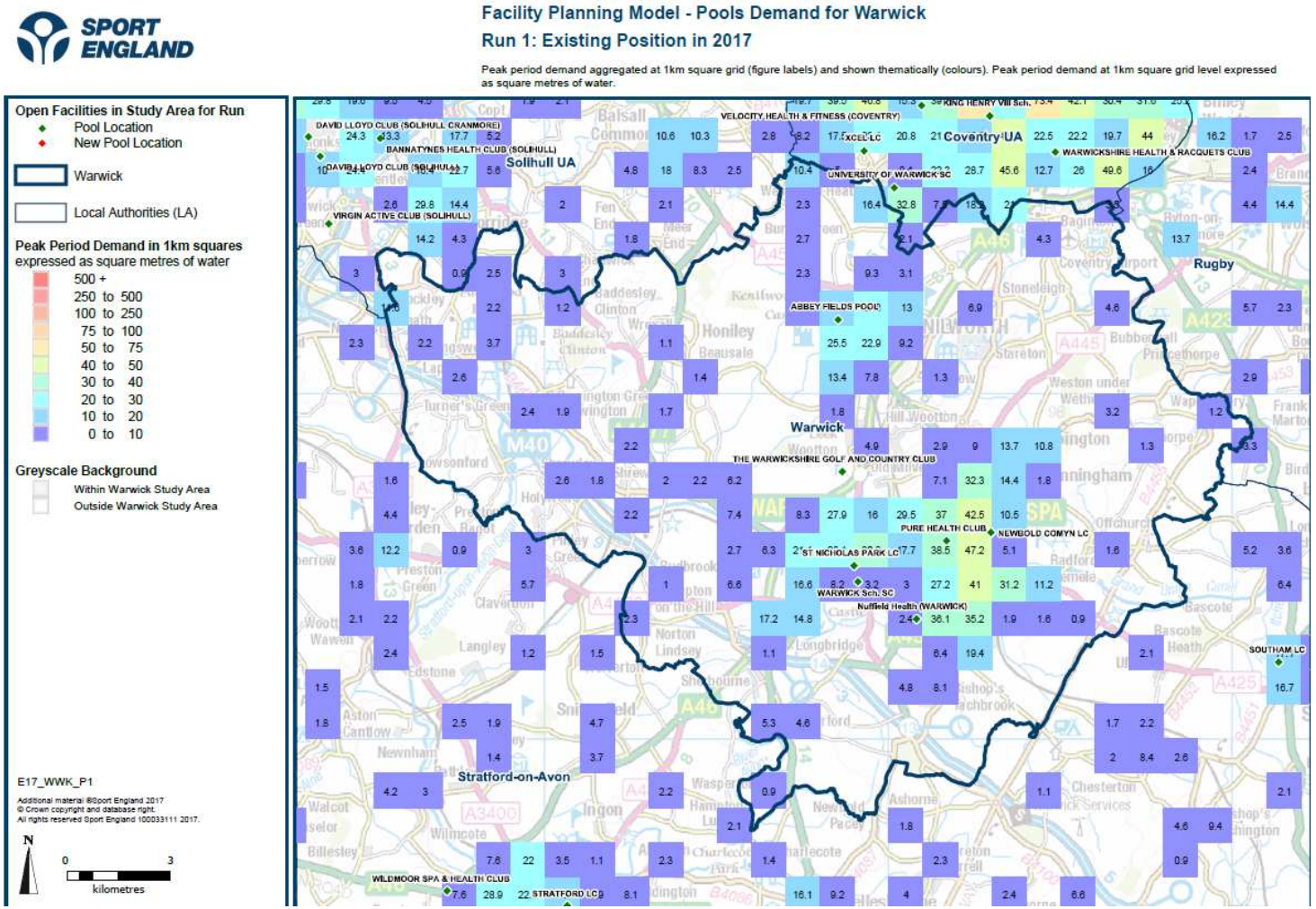
3.7 The location of the demand for swimming across Warwick in 2017 and then in 2029 is set out in Maps 3.1 and Map 3.2 overleaf. The demand values are expressed in sq metres of water in 1 kms grid square. The values are lowest with purple, at 0 – 10 sq metres of water, then mid blue 10 – 20 sq metres of water, turquoise at 20 – 30 sq metres of water, green with 30 – 40 sq metres of water, and sage green the highest at 40 – 50 sq metres and beige the highest at 50 – 60 sq metres of water.

3.8 As Map 3.1 shows demand is highest in and around Warwick Town and Leamington Spa and demand is highest east of Newbold Comyn Leisure Centre. There are lower levels of demand for

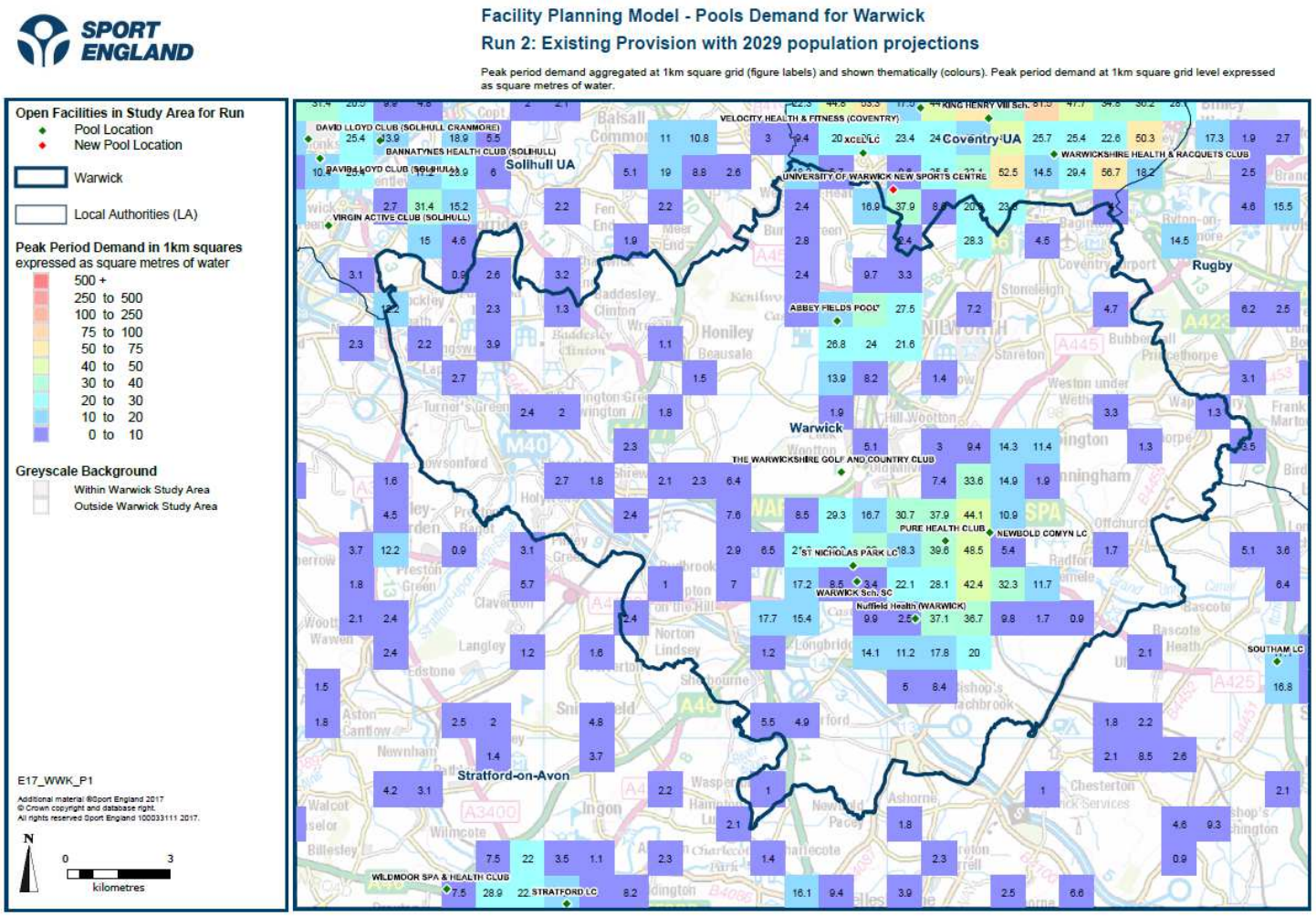
swimming around Kenilworth and after that demand is dispersed in low values with purple and blue squares across the rest of the District.

3.9 The impact of changes in demand from population growth to 2029 is set out in Map 3.2 and this shows that demand increase in all of the same areas. It is higher in Warwick town and Leamington Spa with a few higher value turquoise squares and fewer blue squares. There are no new areas of demand for swimming in 2029, when compared with 2017, it is the same areas and with increasing demand.

Map 3.1: Warwick total demand for swimming run 1 in 2017



Map 3.2: Warwick total demand for swimming run 2 in 2029



3.10 The findings on the percentage of the population who do not have access to a car is set out under total demand and this is 17.6% of the Warwick population. The Warwick finding illustrates that around one in six residents will find it difficult to access a pool, if there is not a pool within a 20 minutes/1 mile walk travel time of where they live, or, they cannot access a pool by public transport. It underlines the importance of pool locations in terms of access for people without access to a car. Very fortunately the pools are located in the urban areas of the District and as Maps 3.1 and 3.2 show the levels of demand for swimming away from the urban area are low.

3.11 The findings on travel patterns to swimming pools are set out under the satisfied demand headings.

3.12 The findings on the percentage of the population without access to a car in the neighbouring authorities is set out in Table 3.2 below. Warwick is again mid table, with Coventry having the highest percentage in both years at 31%. Whilst the authority with the lowest level of population without access to a car is in Stratford– on-Avon at 12% in both years.

3.13 The West Midlands Regional figure is 24.1% and the England wide percentage is 24.9% of the population who do not have access to a car in both years.

Table 3.2: Percentage of the population without access to a car across the study area 2017 – 2029

% of population without access to a car	RUN 1	RUN 2
	2017	2029
Warwick	**17.6**	**17.6**
Coventry	31.0	31.0
Solihull	18.5	18.5
Rugby	16.5	16.5
Stratford-on-Avon	12.0	12.0

4. Supply and Demand Balance

Table 4.1: Supply and Demand Balance Warwick District 2017 – 2029

Warwick	RUN 1	RUN 2
Supply/Demand Balance	**2017**	**2029**
Supply - Swimming pool provision (sq m) scaled to take account of hours available for community use	1,753	1,753
Demand - Swimming pool provision (sq m) taking into account a 'comfort' factor	1,493	1,742
Supply / Demand balance - Variation in sq m of provision available compared to the minimum required to meet demand.	260	11

4.1 Definition of supply and demand balance – supply and demand balance compares the total demand generated for swimming within Warwick District with the total supply of swimming pools within Warwick District. It therefore represents an assumption that ALL the demand for swimming in Warwick District is met by ALL the supply of swimming pools in Warwick District (Note: it does exactly the same for the other local authorities in the study area).

4.2 In short, supply and demand balance is NOT based on where the pools are located and their catchment area extending into other authorities. Nor, the catchment areas of pools in neighbouring authorities extending into Warwick. 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 pools is set out under Satisfied Demand, Unmet Demand and Used Capacity.

4.3 The reason for presenting the supply and demand balance is because some local authorities like to see how THEIR total supply of pools compares with THEIR total demand for pools. Supply and demand balance presents this comparison.

4.4 When looking at this closed assessment, run 1 shows the Warwick demand for swimming pools is 1,493 sq metres of water. The Warwick supply of swimming pools available for community use, equates to 1,753 sq metres of water. So there is a positive balance of supply being greater than demand by 260 sq metres of water.

4.5 In 2029 the impact of the population growth is to increase total demand to 1,742 sq metres of water and supply is assumed to be unchanged at 1,753 sq metres of water. So across Warwick there is a small surplus of supply over demand of 11 sq metres of water.

4.6 So when looking at simply comparing the Warwick supply of swimming pools with the Warwick demand there is surplus in 2017 and near balance in 2029. This suggests that when supply and demand is based on the catchment area of pools and across local authority

boundaries, there is going to be a sufficient supply of swimming pools to meet the Warwick demand in both years.

4.7 The supply and demand balance for all the authorities in the study area is set out in table 4.2 below. There are extensive supply and demand balances in 2017 in four of the neighbouring authorities, the highest being in Solihull at 1,174 sq metres of water and the lowest in Rugby at 218 sq metres of water.

4.8 There is a negative balances of 939 sq metres of water in Coventry in 2017.

4.9 Overall across all the authorities in the study area, there is a positive balance in 2017 of 1,075 sq metres of water and in 2029 a positive balance of 654 sq metres of water.

Table 4.2: Supply and demand balance for swimming pools across the study area 2017 – 2029

Supply / Demand balance - Variation in sqm of provision available compared to the minimum required to meet demand.	RUN 1	RUN 2
	2017	2029
Warwick	**260.1**	**11.0**
Coventry	-939.0	-939.4
Solihull	1174.7	1068.1
Rugby	218.8	153.3
Stratford-on-Avon	365.3	361.2

5. Satisfied Demand for Swimming

Table 5.1: Satisfied demand for swimming Warwick District 2017 - 2029

Warwick	RUN 1	RUN 2
Satisfied Demand	**2017**	**2029**
Total number of visits which are met (visits per week peak period)	8,571.	9,988.
% of total demand satisfied	95.3	95.2
% of demand satisfied who travelled by car	80.6	81.
% of demand satisfied who travelled by foot	11.8	11.2
% of demand satisfied who travelled by public transport	7.6	7.8
Demand Retained (visits per week peak period)	7,604.	8,130.
Demand Retained -as a % of Satisfied Demand	88.7	81.4
Demand Exported (visits per week peak period)	967.	1,858.
Demand Exported -as a % of Satisfied Demand	11.3	18.6

5.1 Definition of satisfied demand – it represents the proportion of total demand that is met by the capacity at the swimming pools from residents who live within the driving, walking or public transport catchment area of a pool.

5.2 In both runs the amount of total demand that can be satisfied/met is very high, at 95.3% in 2017 and then 95.2% in 2028. The reason for the virtually no change in satisfied demand is because across the study area the supply of swimming pools exceeds demand in both years. So when this is based on the catchment area of pools, then the demand is finding pools that can be accessed and there is enough capacity to absorb a very high level of the total demand.

5.3 The level of satisfied demand across the study area is set out in Table 5.2 overleaf. This shows that in ALL areas, the amount of satisfied demand is over 90% of total demand in both years. Coventry, not surprisingly, has the lowest level, as it has a supply deficit but the pools that are accessible to the Coventry population still means that over 90% of the total Coventry demand is met in both years.

Table 5.2: Satisfied demand for swimming across the study area 2017 – 2029

% of total demand satisfied	RUN 1	RUN 2
	2017	**2029**
Warwick	**95.3**	**95.2**
Coventry	90.6	90.4
Solihull	93.0	92.6
Rugby	94.6	94.6
Stratford-on-Avon	91.3	91.3

5.4 Car travel is the dominate travel mode to swimming pools in Warwick with between 80% and 81% of all visits to pools are by car (car catchment area 20 minutes' drive time).

5.5 The percentage of visits to pools by walkers (20 minutes/1mile catchment area) is 11.8% in 2017 and projected to be 11.2% in 2029, This may reflect the fact that all the pool sites are in the urban areas of the District and so there is good accessibility, plus given this accessibility some car owners may choose to walk to pools.

5.6 The percentage of visits by public transport (15 minutes catchment area) is 7.6% of all visits in 2017 and projected to be 7.8% in 2029.

5.7 Travel to pools by a combination of walking and public transport is between 19% - 20% and so represents nearly one in five visits, this underlines the need to keep a network of local accessible pools.

Retained demand

5.8 There is a sub set of the satisfied demand findings which are about how much of the Warwick District demand for swimming is retained at the Warwick pools. This is based on the catchment area of pools and residents using the nearest pool to where they live - known as retained demand.

5.9 The findings are that 88.7% of the total 95.3% of the Warwick demand for pools in 2017 is retained at pools located in Warwick. In 2029 the findings are projected to be, 81.4% of the Warwick total demand met of 95.2% is retained at pools in the District.

5.10 This reinforces how accessible the Warwick pools and their catchment areas are to where the Warwick demand for swimming is located. The nearest pool for over eight of ten visits to a pool in both years by a Warwick resident is a pool located in the District.

5.11 The reduction of over 7% in retained demand between the two years, does reflect that the location of the new residential development means the nearest pool for this 7% of satisfied demand is a pool located outside the District - finding set out next under exported demand.

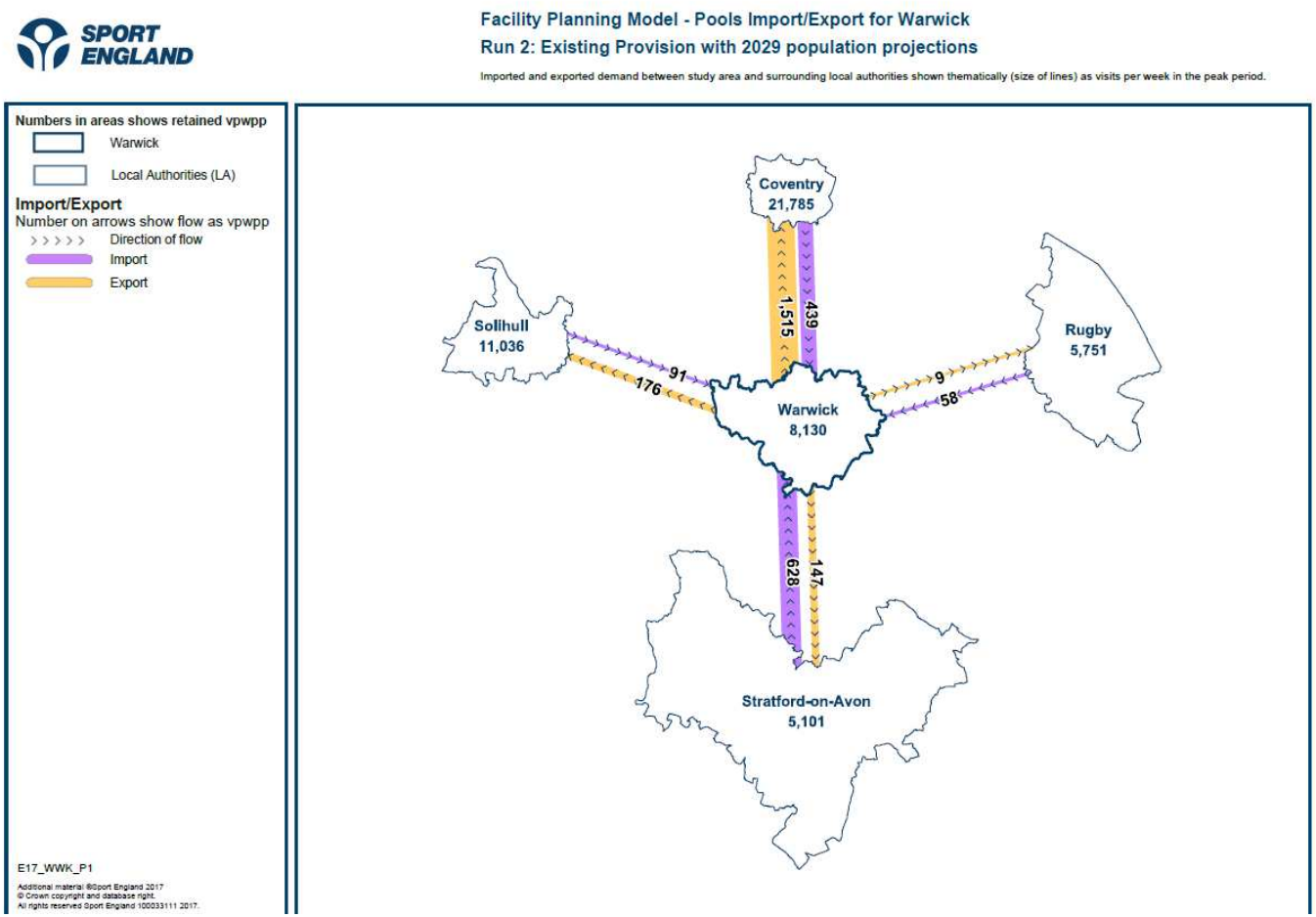
Exported demand

5.12 The residual of satisfied demand, after retained demand is exported demand. Based on residents using the nearest pool to where they live, 11.3% of the Warwick demand for swimming is met outside the District in 2017 and this increases to 18.6% in 2029.

5.13 The destination and scale of the Warwick exported demand for run 2 is set out in Map 5.1 overleaf. The yellow chevron represents the number of visits which are exported and met in neighbouring authorities. The largest export goes to Coventry at 1,515 visits per week (82% of the Warwick total exported demand).The area of this exported demand from Warwick to Coventry is illustrated in Map 6.2. After this export, some 176 visits go to Solihull (9.5%), then 147 visits (7.9%) to Stratford on Avon and just 9 visits in the weekly peak period (0.4%) go to Rugby.

5.14 To provide comparative context, there are 1,847 visits in the weekly peak period which are exported and 8,130 visits which are retained in Warwick in the weekly peak period in run 2. Run 2 is selected because it has the higher level of exported demand.

Map 5.1: Export of Warwick satisfied demand for swimming. Run 2 for 2029



6. Unmet Demand for Swimming

Table 6.1: Unmet demand for swimming Warwick District 2017 - 2029

Warwick	RUN 1	RUN 2
Unmet Demand	**2017**	**2029**
Total number of visits in the peak, not currently being met (visits per week peak period)	424.	508.
Unmet demand as a % of total demand	4.7	4.8
Equivalent in Water space m2 - with comfort factor	70.	84.
% of Unmet Demand due to:		
Lack of Capacity -	0.6	0.8
Outside Catchment -	99.4	99.2

6.1 The unmet demand definition has two parts to it - demand for pools which cannot be met because (1) there is too much demand for any particular swimming pool within its catchment area; or (2) the demand is located outside the catchment area of any pool and is then classified as unmet demand.

6.2 Unmet demand is low in both runs and hardly changed, at 4.7% of total demand in 2017 and 4.8% in 2029.

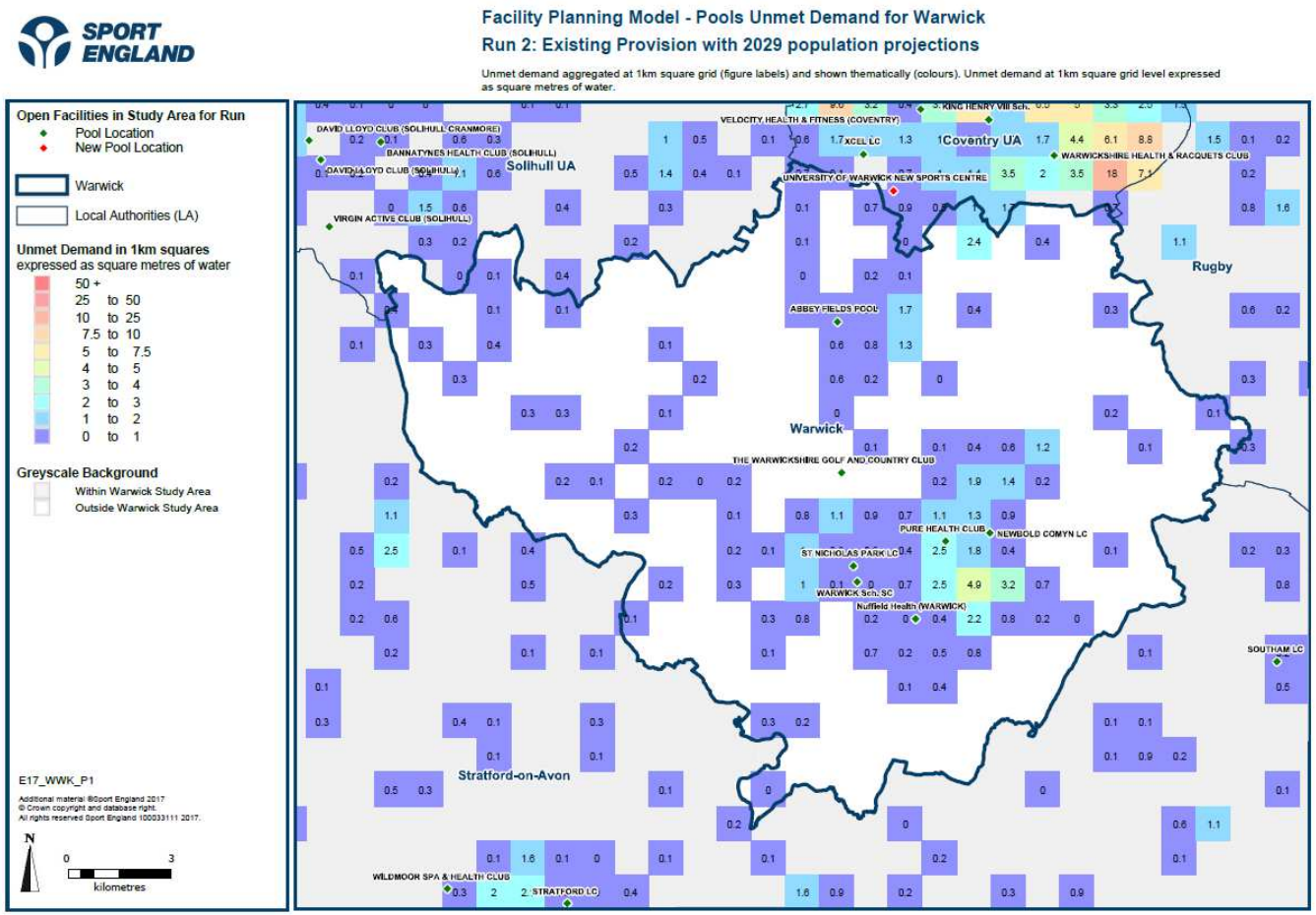
6.3 Unmet demand in run 1 equates to 70 sq metres of water and it increases slightly to 84 sq metres of water in run 2. (To repeat and for context, a 25m x 4 lane pol is between 210 and 250 sq metres of water, depending on lane width).

6.4 All but 0.6% of the unmet demand is from definition 2, demand located outside the catchment area of a pool. Unmet demand outside catchment will always exist because it is not possible, to get complete geographic coverage where by all areas are inside catchment. Complete geographic coverage is not possible when the walking catchment area is small at only 1 mile or 20 minutes' walk time. The key point is not that unmet demand outside catchment exists but the SCALE and at a range of between 70 - 84 sq metres of water it is very small scale. Again for context, Warwick has 1,753 sq metres of water available for community use in both years.

6.5 The location and scale of unmet demand is set out in Map 6.1 and this is for run 2 with unmet demand of 84 sq metres of water. The unmet demand in Map 6.1 is represented in colour coded one kilometre grid squares, with the sq metres of water of unmet demand in each square. The values are indigo (0 - 1 sq metre of water), mid blue (1 – 2 sq m), light blue (2 – 3 sq m) green (3 – 4 sq m and sage green (4 – 5 sq m).

6.6 As the map shows, unmet demand is clustered in these very low values around Warwick Town and Leamington Spa. In total the unmet demand in this area is around 40 -45 sq metres of water. Whilst in Kenilworth the unmet demand is projected to be around 15 sq metres of water. The remainder of the unmet demand is dispersed in very low values across the District.

Map 6.1: Run 2 Unmet demand for swimming pools Warwick 2029



6.7 Warwick has the lowest level of unmet demand, when compared with the neighbouring authorises in the study area. In all areas unmet demand is low, reflecting the supply of swimming pools exceeds demand in all authorities except Coventry. Coventry has the highest level of unmet demand at 9.4% of its total demand for swimming in 2017 and 9.6% in 2029.

Table 6.2: Unmet demand for swimming pools across the study area 2017 – 2029

Unmet demand as a % of total demand	RUN 1	RUN 2
	2017	2029
Warwick	**4.7**	**4.8**
Coventry	9.4	9.6
Solihull	7.0	7.4
Rugby	5.4	5.4
Stratford-on-Avon	8.7	8.7

Car catchment area of swimming pools

6.8 It is possible to set out how many swimming pools can be accessed by Warwick residents based on where they live and the 20 minute drive time catchment area of the swimming pool locations (both pools in Warwick and pools in neighbouring authorises and where their catchment area extends into Warwick). This is set out in Map 6.2 and again it is for run 2 in 2029.

6.9 The District is split into distinct areas, the main one is an area running north to south and on the North West boundary of the district which are shaded dark green. Residents in this area have access to between 10 - 15 pools, based on where they live, and pool locations and their 20 minute drive time catchment extending into these areas.

6.10 In the area shaded liger green, to the east and west sides of the district, residents have access to between 5 – 10 swimming pools, based on the same criteria.

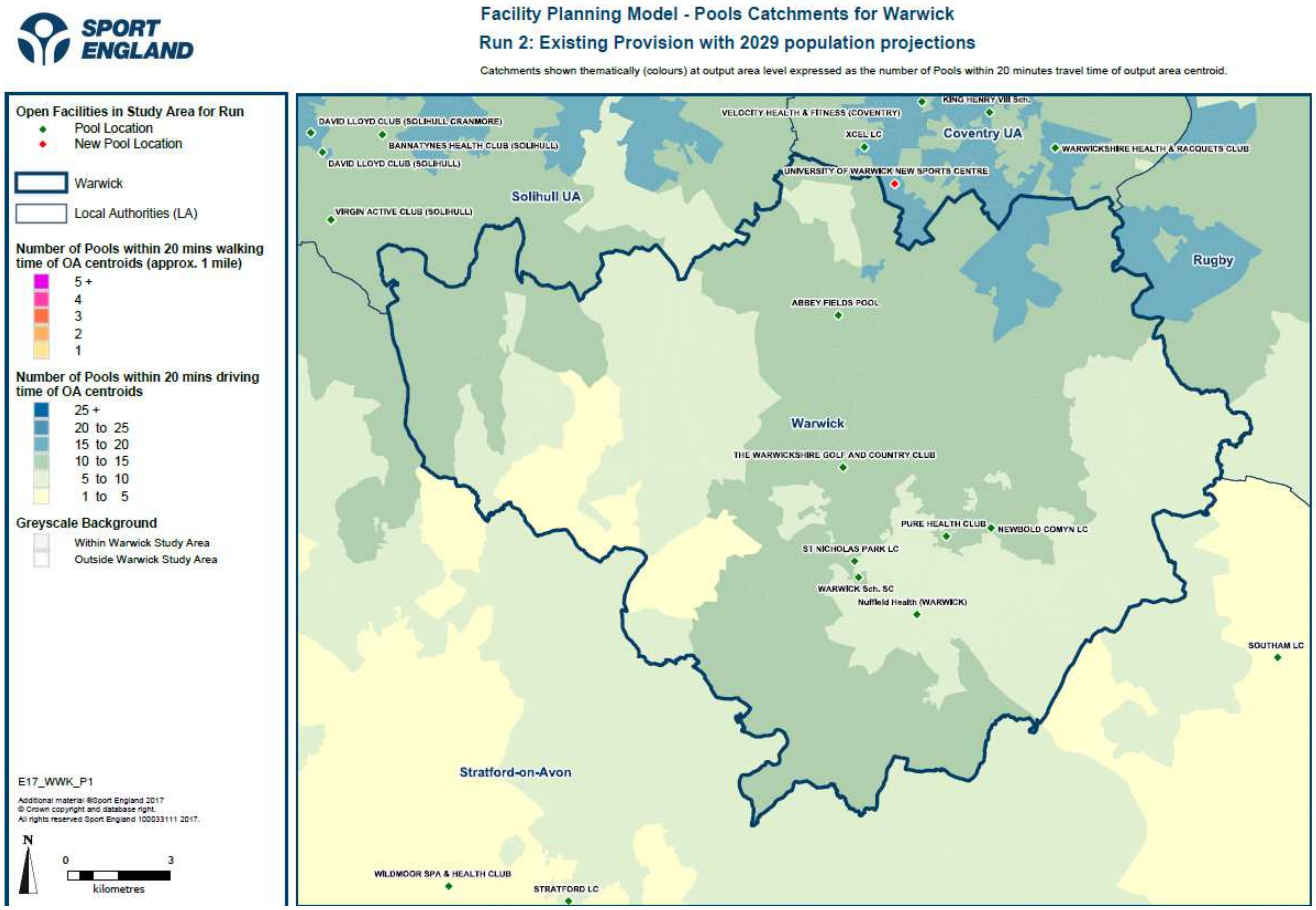
6.11 Access to swimming pools is highest in the area shaded light blue, close to the Coventry boundary where residents have access to between 15 – 20 pools, again based on the same criteria. In effect, some of the extensive swimming pool supply in Coventry of 15 pools on 11 sites is extending into this part of Warwick and providing a high level of accessibility to pools for residents in this area.

6.12 Access to swimming pools is lowest in Warwick in the south west of the District close to the Stratford – on – Avon boundary, in the area shaded cream. Residents in this area have access to between 1 – 5 swimming pools, based on where they live and the 20 minute drive time catchment area of the pool locations which extend into this area.

6.13 Overall, around 60% of the land area of the District is inside the drive time catchment area of between 10 – 15 swimming pools. Whilst around 30% of the land area of the District is inside the drive time catchment area of between 5 – 10 pools.

6.14 So for the 82% of residents who DO have access to a car, and chose to drive to a swimming pool, there is a high number of pools which are accessible. (Between 80% and 81% of all visits to pools in both years are by car).

Map 6.2: Run 2 access to swimming pools based on the car travel catchment area of pools Warwick 2029

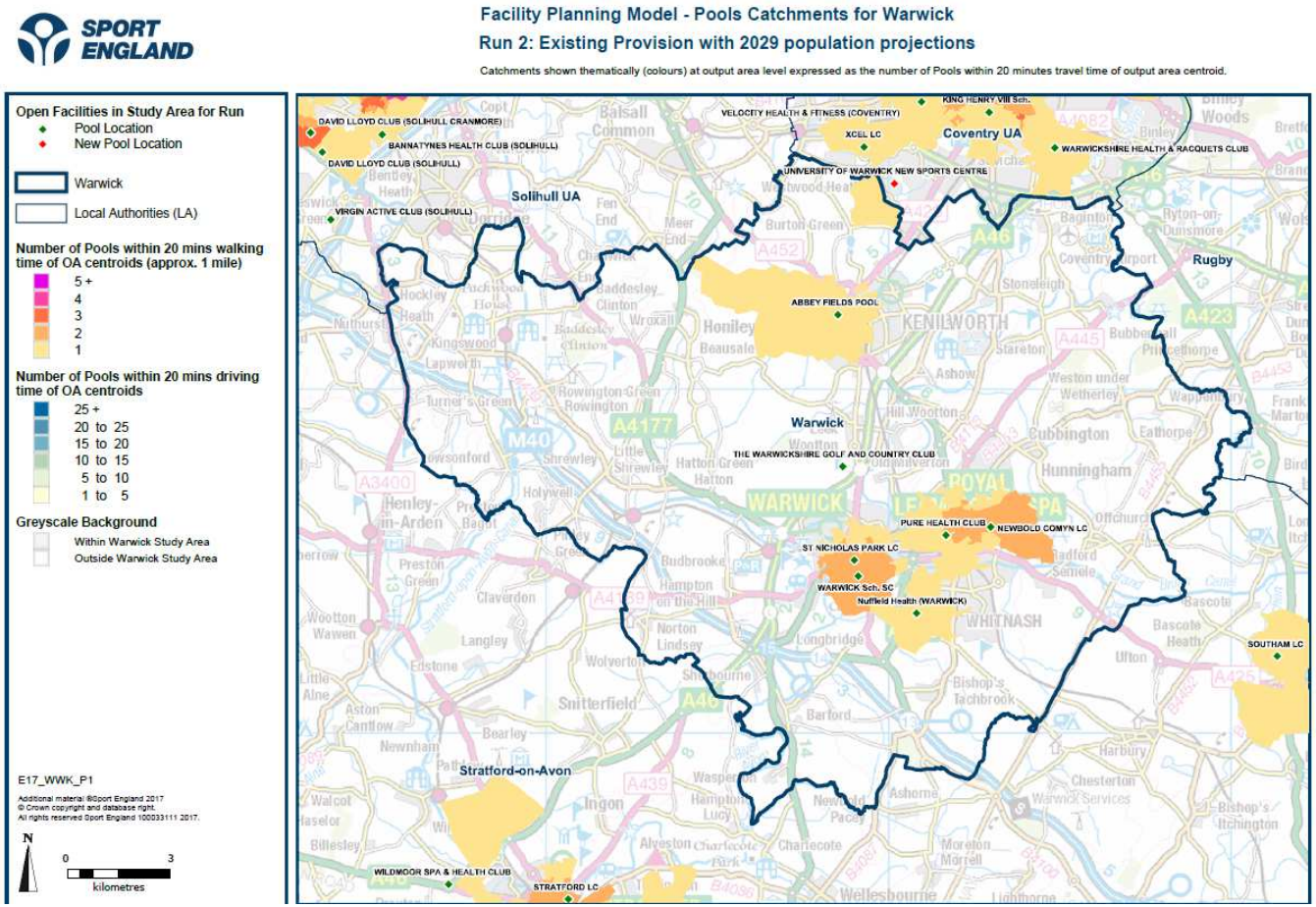


Walking catchment area of swimming pools

6.15 It is also possible to do the same mapping for the 20 minutes/1 mile walking catchment area of swimming pools and this is set out in Map 6.3, again for run 2. Residents in the beige areas are inside the catchment area of one pool and in the orange area, residents can access 2 pools based on where they live and the walking catchment area of the pool locations.

6.16 Of note, is the extensive walking catchment area of the Abbey Fields pool in Kenilworth.

Map 6.3: Run 2 access to swimming pools based on the walking catchment area of pools Warwick 2029



7. Used Capacity (how full are the pools)

Table 7.1: Used capacity of swimming pools Warwick 2017 - 2029

Warwick	RUN 1	RUN 2
Used Capacity	**2017**	**2029**
Total number of visits used of current capacity (visits per week peak period)	9,038.	9,354.
% of overall capacity of pools used	59.5	61.6
% of visits made to pools by walkers	10.7	11.4
% of visits made to pools by road	89.3	88.6
Visits Imported;		
Number of visits imported (visits per week peak period)	1,434.	1,224.
As a % of used capacity	15.9	13.1

7.1 Definition of used capacity - is a measure of usage at swimming pools and estimates how well used/how full facilities are. The facilities planning model is designed to include a 'comfort factor', beyond which, in the case of pools, the venues are too full. The pool itself becomes too crowded as do the changing and circulation areas. The model assumes that usage over 70% of capacity is busy and the swimming pool is operating at an uncomfortable level above that percentage.

7.2 In run 1 the 2017 baseline estimate is that the pools are 59.5% full at peak times and this increases to 61.6% in 2029, these are the District averages for all the pools. So below the Sport England pools full comfort level and with a reasonable amount of headroom before the pools full comfort level is reached.

7.3 The estimated used capacity for each pool does vary from the District wide average and the findings for each pool site are set out in Table 7.2, and this is for run 2. There is little variation between runs 1 and 2 for each pool sites just the used capacity is a bit lower at each individual site in run 1.

Table 7.2: Used Capacity of the Warwick swimming pools. Runs 1 – 2

	PUBLIC / COMMERCIAL	RUN 1	RUN 2
Warwick pools individual sites used capacity		**2017**	**2029**
Warwick		**59**	**62**
ABBEY FIELDS SWIMMING POOL	P	73	81
NEWBOLD COMYN LEISURE CENTRE	P	72	79
NUFFIELD HEALTH (WARWICK)	C	45	44
PURE HEALTH CLUB	C	52	53
ST NICHOLAS PARK LEISURE CENTRE	P	78	81
THE WARWICKSHIRE GOLF AND COUNTRY CLUB	C	31	33
WARWICK SCHOOL SPORTS CENTRE	P	56	58

7.4 As Table 7.2 shows all the public leisure centre swimming pools have higher individual used capacity percentages than the District average. This is because these pools provide for the full range of swimming activities of learn to swim, public recreational swimming, lane and fitness swimming and swimming development through clubs. In addition, there is the leisure pool at Newbold Comyn to provide for family based and fun activities. The site will have a wider draw because it is the only pool site with a leisure pool.

7.5 Also, the public swimming pools will have the fullest accessibility, in terms of opening hours with accessibility for club and public use. The pools do not have reduced hours of community access as at the education pool site. Also as public leisure centres, there is not the requirement to pay a monthly membership fee to access the pool. With the commercial pools, access is based on an ability and willingness to pay this membership. Finally the pools will be proactively managed to encourage and support swimming participation.

7.6 So for all these reasons, there is a draw effect of the public swimming pool sites and that is why they have the higher than the district average used capacity.

7.7 Abbey Fields is estimated to have 77% of pool capacity used in the weekly peak period in 2017 and increasing to 81% in 2029. At Newbold Comyn the estimated used capacity is 72% in 2017 and increasing to 79% in 2029. Whilst at St Nicholas Park the estimated used capacity is 78% in 2017 and increasing to 81% by 2029.

7.8 In effect, all the public leisure centre swimming pool sites have an estimated used capacity which is above the Sport England pools full comfort level of 70% of pool capacity used in the weekly peak period.

7.9 There are several reasons why the used capacity can vary at individual sites, often for several reasons combined. These are

- The population and the amount of demand in the catchment area of any pool. If there is an area with few other pools within the catchment area then any one pool will retain a higher level of demand and used capacity. This maybe the case at Abbey Fields, plus it is close to the Coventry boundary, and as identified in the supply and demand balance findings, Coventry is the only authority where the Coventry demand for pools exceeds the Coventry supply. So for pools which are full in Coventry and where some of the Coventry demand is located within the drive time catchment area of Abbey Fields then this demand could be met at Abbey Fields

- The age and condition of a pool and as mentioned earlier, the quality of the swimming offer is of more importance to residents. Increasingly residents will travel further to access a more modern pool. Both St Nicholas and Newbold Comyn are undergoing modernisation in 2017 and whilst the pool tanks are not changing, upgraded changing accommodation with improved and expanded facilities at the centre will be a draw.

- The amount of water space at a pool site, a pool with a 25m x 6 lane pool may have a lower percentage of used capacity than a 25m x 4 lane pool but the larger pool can accommodate more usage. It is important to also consider the size of the pool sites and not just view the

percentage figure in isolation. This makes the capacity used in the weekly peak period at Newbold Comyn even more impressive. The pool site has a 25m x 6 lane main pool and a 230 sq metres of water fun/leisure pool, so a total water area of 555 sq metres of water, of which, 72% in 2017 and 79% in 2029 is estimated to be used in the weekly peak period.

- The hours available for community use. The Warwick School swimming pool has 56% and 58% of pool capacity used in the weekly peak period, in the two years. However, the data is recording that it is only available for community use, most likely club or learn to swim programmes, for 8 hours a week. So it is easier to have a high used capacity when there is only a few hours of community access a week.

7.1 The commercial pool sites do have a lower used capacity than the public swimming pool sites, and for the reasons set out, namely the use is limited to recreational swimming by the centre membership, and possibly learn to swim programmes. So the type of use and the volume of use is much more limited than at the public swimming pool sites.

7.2 The reasons for the slight variation in the used capacity at the commercial pools is most likely because of the age of the pools, Pure Gym has the highest at 52% and then 53% in 2029. It is the most recent pool in the district having opened in 2007, so possibly a draw effect of the more modern site. It is also the smallest of the commercial pool sites at 180 sq metres of water, so higher used capacity in a smaller pool.

7.3 The Nuffield Health Pool site has an estimated used capacity of 45% and then 44% in 2029 but it is also the largest pool site, with a main pool of 160 sq metres and a teaching learner pool of 81 sq metres of water. The Warwickshire Golf and Country club pool has the lowest used capacity at 31% and then 33% in 2029.

Imported demand

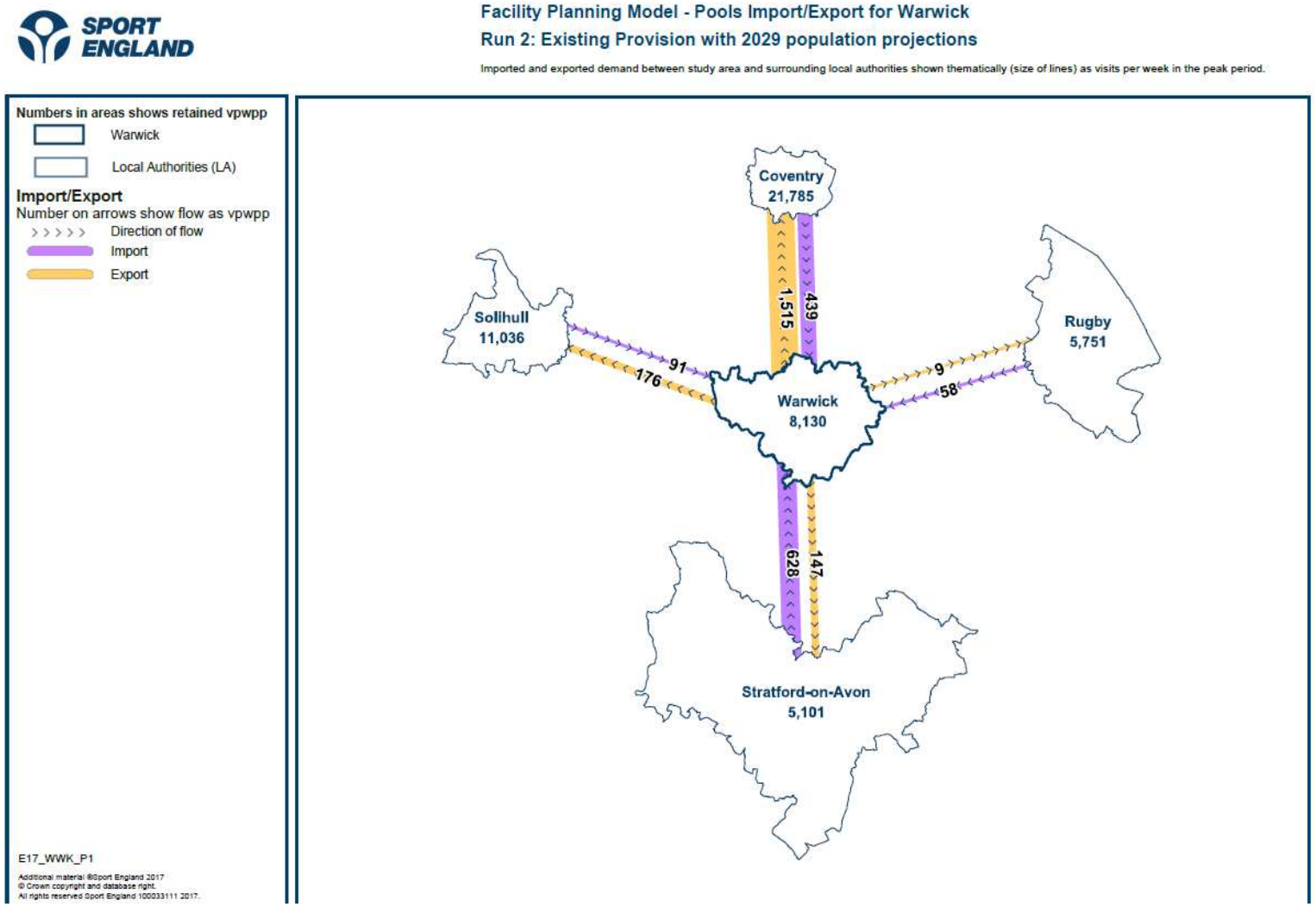
7.10 Imported demand is reported under used capacity because it measures the demand from residents who live outside Warwick but the nearest pool to where they live is inside the District. So if residents use the pool nearest to where they live this becomes part of the used capacity of the Warwick pools.

7.11 The percentage of imported demand is estimated to be 15.9% of the used capacity of the Warwick pools in run 1 but decreasing to 13.1% in 2029. The reason for the reduction is most likely because the location of the new residential development within the District is creating a slight shift, whereby the location of the nearest pool for more Warwick residents is in a neighbouring authority in 2029.

7.12 This is borne out by the export of the Warwick demand and which is met at pools in neighbouring authorities. This increases from 11.3% of the Warwick met demand in 2017 to 18.6% in 2029.

7.13 The source and scale of the imported demand is set out in Map 7.1 for run 2 in 2029, he largest imported demand is from Stratford-on-Avon, at 828 visits or 51.6% of the total imported demand. Then 439 visits are imported in the weekly peak period from Coventry (36.1%), 91 visits from Solihull (7, 4%) and 58 visits from Rugby (4.7%).

Map 7.1: Run 5 Import of demand for swimming Warwick 2029



8. Local Share of Facilities

Table 8.1: Local share of swimming pools Warwick District 2017 - 2029

Warwick	Run 1	Run 2
Local Share	**2017**	**2029**
Local Share: <1 capacity less than demand, >1 capacity greater than demand	1.48	1.03
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	134.5	145.1
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	34.5	45.1

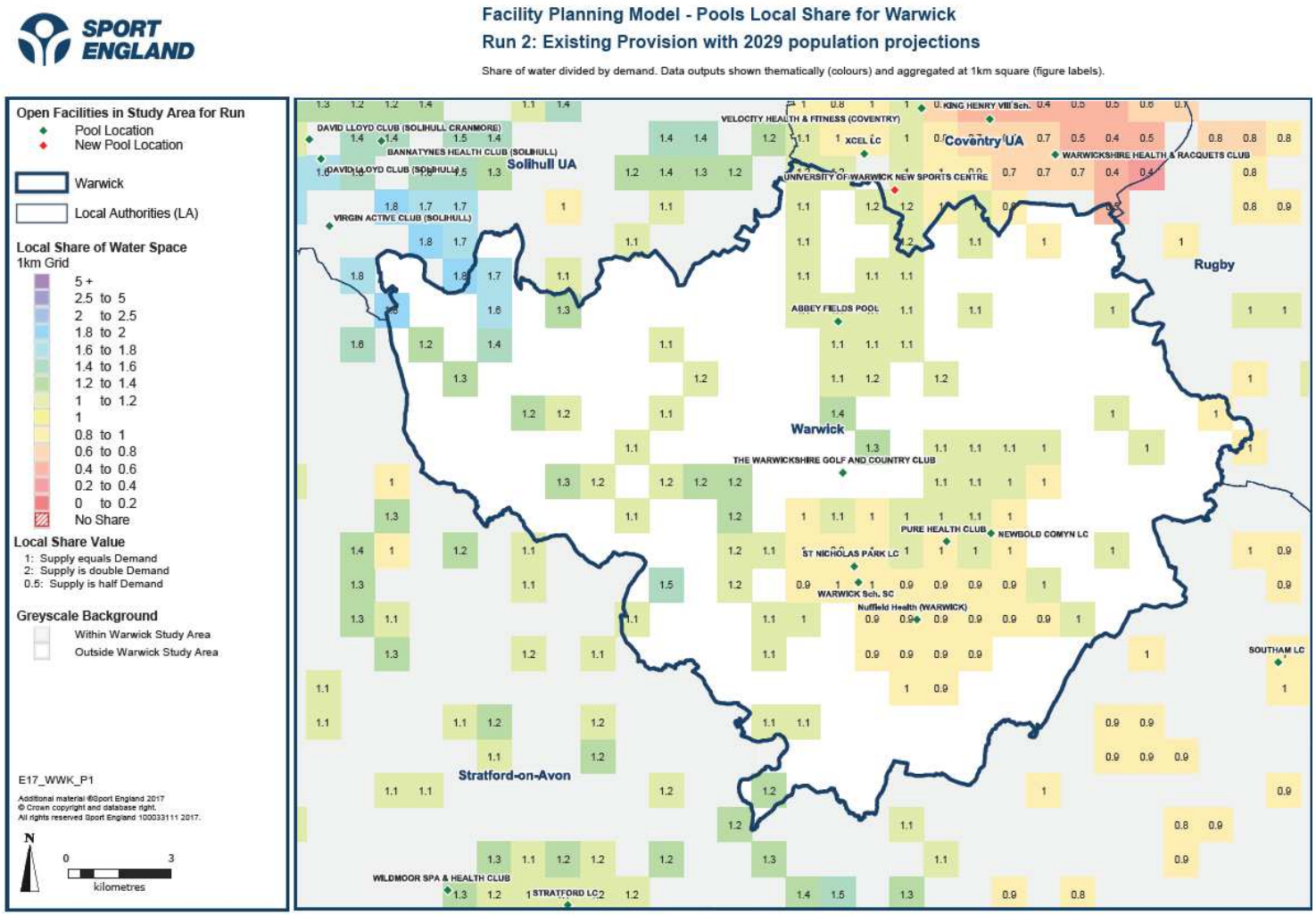
8.1 Local share has quite a complicated definition - it helps to show which areas have a better or worse share of facility provision. It takes into account the size and availability of facilities as well as travel modes. Local share is useful at looking at 'equity' of provision. Local Share is the available capacity that can be reached in an area divided by the demand for that capacity in the area. A value of 1 means that the level of supply just matches demand while a value of less than 1 indicates a shortage of supply and a value greater than 1 indicates a surplus.

8.2 In runs 1 and 2 Warwick has a local share of 1.48 in 2017 and then 1.03 in 2029. So supply is much greater than demand in terms of local share of pools in 2017, However the impact of the population growth increasing demand and there being no increase in swimming pool supply means that supply and demand are almost in balance in 2029.

8.3 The distribution of local share and how it varies across the District is set out in Map 8.1 overleaf. For consistency with other mapping this is for run 2.

8.4 Local share is highest in the areas/squares shaded light green (share is between 1 – 1.20) and dark green (1.20 – 1.40). Local share is lowest in the yellow areas/squares (1.00 – 0.80). Local share is lowest in the areas with swimming pools are located. The most likely reason is that population density is also highest in these areas. So more demand than there is pool supply and so less share of access to swimming pools in these areas.

Map 8.1: Run 5 Local share of swimming pools Warwick 2029



8.5 This ends the reporting of the detailed findings on the assessment of swimming pools provision. The executive summary of findings and way forward is set out next.

9. Summary of key findings and conclusions

9.1 The facilities planning model (fpm) sets out to assess the current and future supply, demand and access to swimming pools across Warwick District and a wider study area which includes all the neighbouring local authorities to Warwick.

9.2 This assessment includes the projected growth in population up to 2029 in Warwick District and in all the surrounding local authorities, which make up the study area, The assessment also includes the committed residential development due to be delivered in Warwick District up to 2029. So the major sites are identified and the scale of residential development at these sites is included in the analysis for 2029.

9.3 The fpm evidence base will be applied by the Council in the strategic planning of provision for swimming pools across the District. It will be used to inform and update the Council's indoor sports and recreational facilities strategy.

9.4 In the fpm work there are two assessments and these include committed changes in swimming pools provision in the neighbouring authorities, and which will impact on the supply, demand and access to pools in the District.

9.5 The fpm modelling runs are:

- Run 1 – supply, demand and access to swimming pools, based on the baseline position in 2017. An assessment of the current position from which to measure change

- Run 2 – supply, demand and access to swimming pools, based on the projected population growth between 2017 and 2029. As mentioned, this run also includes the location and scale of the major residential development that will be developed in the District up to 2029.

9.6 Reference to Warwick from now on refers to the District and where there are findings specific to Warwick town, these will be referenced as such.

9.7 To try and summarise the extensive findings from the fpm assessment, Table 9.1 sets out the key findings under the headings analysed in the fpm runs. This provides a "read across" to see what changes between 2017 and 2029. A question and answer approach tries to draw out the key findings, with the typeface in red.

9.8 Table 9.1 is followed by a description of the main findings and overall conclusions.

Table 9.1: Swimming pools runs 1 – 2 key findings for Warwick District 2017 - 2029

Warwick	RUN 1	RUN 2
Total Supply	**2017**	**2029**
Number of pools	10.	10.
Number of pool sites	7.	7.
Supply of total water space in sq m	2,116.	2,116.
Supply of water space in sq m, scaled by hours available in the peak period	1,753.	1,753.
Supply of total water space in visits per week peak period	15,197.	15,197.
Water space per 1,000 population	15.	13.

Warwick	RUN 1	RUN 2
Total Demand	**2017**	**2029**
Population	141,109.	168,811.
Swims demanded – visits per week peak period	8,995.	10,496.
What is the total demand for swimming pools in sq metres of water and by how much does this increase between 2017 to 2029		
Equivalent in water space – with comfort factor included	1,493.	1,742.
% of population without access to a car	17.6	17.6

Warwick	RUN 1	RUN 2
Supply/Demand Balance	**2017**	**2029**
Supply - Swimming pool provision (sq m) scaled to take account of hours available for community use	1,753.	1,753.
Demand - Swimming pool provision (sq m) taking into account a 'comfort' factor	1,493.	1,742.
How does the Warwick supply and demand balance change between 2017 – 2029? (ie positive balance where supply is greater than demand (= +) and a negative balance, demand greater than supply (= -) in sq metres of water		
Supply / Demand balance - Variation in sq m of provision available compared to the minimum required to meet demand.	+ 260.	+ 11.

Warwick	RUN 1	RUN 2
Satisfied Demand	**2017**	**2029**
Total number of visits which are met (visits per week peak period)	8,571.	9,988.
What % of the Warwick total demand is satisfied (met) demand		
% of total demand satisfied	95.3%	95.2%
% of demand satisfied who travelled by car	80.6	81.
% of demand satisfied who travelled by foot	11.8	11.2
% of demand satisfied who travelled by public transport	7.6	7.8
Demand Retained (visits per week peak period)	7,604.	8,130.
What % of the satisfied demand is retained within Warwick?		
Demand Retained -as a % of Satisfied Demand	88.7%	81.4%
Demand Exported (visits per week peak period)	967.	1,858.
What % of Warwick's satisfied demand is exported		
Demand Exported -as a % of Satisfied Demand	11.3%	18.6%

Warwick	RUN 1	RUN 2
Unmet Demand	**2017**	**2029**
Total number of visits in the peak, not currently being met (visits per week peak period)	424.	508.
How much unmet demand is there as a % of total demand		
Unmet demand as a % of total demand	4.7%	4.8%
How much unmet demand is there in sq metres of water?		
Equivalent in Water space m2 - with comfort factor	70 sq m	84 sq m.
How much unmet demand is due to:		
Lack of Capacity -	0.6%	0.8%
Outside Catchment -	99.4%	99.2%

Warwick	RUN 1	RUN 2
Used Capacity	**2017**	**2029**
Total number of visits used of current capacity (visits per week peak period)	9,038.	9,354.
How full are the Warwick pools as a District average (%)?		
% of overall capacity of pools used	59.5%	61.6%
% of visits made to pools by walkers	10.7	11.4
% of visits made to pools by road	89.3	88.6
How much of the usage of the Warwick pools is imported (%)?		
Number of visits imported (visits per week peak period)	1,434.	1,224.
As a % of used capacity	15.9%	13.1%

9.9 There are some evident findings and trends that emerge from table 9.1. These are summarised in bullet point form:

- When looking at simply comparing the Warwick demand for swimming with the available supply in Warwick community use, supply exceeds demand, by 260 sq metres of water in 2017. The impact of the projected increase in demand for swimming from the population growth and new residential development up to 2029 (with supply assumed to be unchanged) is that demand exceeds supply by just 11 sq metres of water.

- So the projected increase in demand for swimming from population growth can be met by the existing quantity of water space up to 2029. This is comparing the Warwick demand for swimming pools with the Warwick supply.

- When assessing how much of the Warwick demand for swimming can be met based on the pool locations and catchment areas (pools located both inside and outside Warwick) then 95% of the Warwick demand in both years, is located inside the catchment area of a pool and there is enough pool capacity to meet this level of demand. So a very high level of the Warwick demand for swimming can be met in both years.

- Some 88% of the Warwick met demand in 2017 and 81% in 2029, is retained with the District – this is based on the Warwick pool locations and catchments. This finding identifies that for over eight out ten visits to a swimming pool by a Warwick resident, the nearest pool to where Warwick residents live is a pool located in the District.

- So the pools locations are very accessible to the location of the Warwick demand for swimming. The location of the residential development up to 2029 means that 7% more of the Warwick satisfied demand for swimming is exported. The increase in export of the Warwick demand is to Coventry, which increases from 600 visits per week in the weekly peak period in 2017 to 1,515 visit in 2029. Exported demand to the other three neighbouring authorities remains virtually unchanged.

- The total unmet demand for swimming pools is low because the Warwick supply exceeds demand in both years and over 90% of the Warwick demand for swimming can be met in both years.

- The total Warwick unmet demand in 2017, equates to 70 sq metres of water in 2017 and increases to 84 sq metres of water in 2029 (a 25m x 4 lane pool is between 210 and 250 sq metres of water, depending on lane width).

- Virtually ALL of the unmet demand is locational and it is demand located outside the walking catchment area of a swimming pool. There will always be unmet demand from this source because it is not possible to get complete geographic coverage, when the walking catchment is only 20 minutes/1mile. So the important point is not that unmet demand exists but the scale, and at 70 – 84 sq metres of water, it is not large at all. For context, Warwick has a total supply of 2,116 sq metres of water which is available for community use in the weekly peak period.

- This locational unmet demand is clustered in low values around Warwick town and Leamington Spa. In total, the unmet demand in this area is around 40 -45 sq metres of water. In Kenilworth the unmet demand is projected to be around 15 sq metres of water. The remainder of the unmet demand is dispersed in very low values across the District (Map 6.1 in the main report).

- The swimming pools as a District average are estimated to be 59% full in the weekly peak period in 2017 and this increases to 61% in 2029. Sport England has a benchmark pools full comfort level comfort factor which is applied in the fpm assessment, this is 70% of pool capacity used at peak times. So the District average indicates a reasonable level of headroom before this pools full comfort level is reached.

- However, all the public leisure centre swimming pools have higher individual used capacity percentages than the District average. This is because these pools provide for the full range of swimming activities of learn to swim, public recreational swimming, lane and fitness swimming and swimming development through clubs. In addition, there is the leisure pool at Newbold Comyn to provide for family based and fun activities. This site will have a wider draw because it is the only pool site with a leisure pool Also, the public swimming pools will have the fullest accessibility, in terms of opening hours and with accessibility for club and public use. Also as public leisure centres, there is not the requirement to pay a monthly membership fee to access the pool, as there is with the commercial pools. Finally, the pools will be proactively managed to encourage and support swimming participation.

- So for all these reasons, there is a draw effect of the public swimming pool sites and that is why they have a higher than the District average used capacity. Abbey Fields is estimated to have 77% of pool capacity used in the weekly peak period in 2017 and 81% in 2029. At Newbold Comyn the estimated used capacity is 72% in 2017 and 79% in 2029. Whilst at St Nicholas Park the estimated used capacity is 78% in 2017 and 81% by 2029.

- It is important to also consider the size of the pool sites and not just view the percentage figure in isolation. This makes the capacity used in the weekly peak period at Newbold Comyn even more impressive. The pool site has a 25m x 6 lane main pool and a 230 sq metres of water fun/leisure pool, so a total water area of 555 sq metres of water, of which, 72% in 2017 and 79% in 2029 is estimated to be used in the weekly peak period.

9.10 These are the key findings which emerge from the fpm runs modelled and the assessment

Overall summary and way forward

Supply demand and access

9.11 In overall terms, the findings are that Warwick has a sufficient quantity of water space to meet the Warwick demand for swimming up to 2029.There is no identified need for further swimming pool provision. This assessment includes the projected population growth from 2017 to 2029 in Warwick District, plus the committed location and scale of the residential development in the District up 2029. It also includes in the assessment, the impact of the projected population growth in the neighbouring authorities on the demand for swimming and its distribution up to 2029.

9.12 The pools locations and catchment area are very accessible to the Warwick population, so much so, that Warwick is retaining within the District, over 80% of the satisfied demand for swimming in both years. There is, however, a fall between 2017 and 2029 of 7% from 88% to 81% of the Warwick demand which is retained within the District.

Warwick and Coventry

9.13 For some of the new residential development locations in the District, the nearest pool is located in Coventry. All of the increase in the Warwick exported demand is to Coventry. The total Warwick exported demand met in Coventry is 7% of the total Warwick satisfied demand in 2017 and increases to 15% by 2029.

9.14 The known changes in swimming pool supply in Coventry, as at 2017, have been included in the fpm assessment. However, it is evident if there is a reduction on the number of swimming pool sites in Coventry then a fair percentage of the Warwick demand is going to be displaced. (The reverse could also apply if the Coventry supply increases).

9.15 The Abbey Fields swimming pool site is estimated to have 77% of pool capacity used in the weekly peak period in 2017 and 81% in 2029. So a reduction in supply in Coventry, is going to push more demand to Abbey Fields and which is already a busy swimming pool site. Very unlikely to happen, but it would be challenging for the Abbey Fields pool to absorb all of the Warwick demand which goes to Coventry, which is 1515 visits in the weekly peak period by 2029. It could absorb around half of the visit rate but it would push the Abbey Fields pool usage to very high levels and this may discourage participation.

9.16 It will be important to monitor any changes in the swimming pool supply in Coventry over future years, especially any pool closures close to the Warwick boundary.

Conundrum of enough pools but the pools are very busy and unmet demand is low

9.17 The conundrum from the fpm assessment is that (1) whilst the quantity of water space across the District is sufficient to meet projected demand to 2029 and (2) there is some unmet demand located outside the catchment area of a pool, this is insufficient to consider provision of further swimming pools.

9.18 However, (3) the distribution of demand is such that, the public swimming pool sites are very busy pools and (4) there is limited scope to re-distribute demand from the public pools to other pools because of (A) loss of income and (B) the other pools sites either commercial or education pool sites, offer very limited scope other than providing for recreational swimming.

9.19 In effect, it is managing the current public pool stock to meet what is a good level of projected demand and usage. Modernisation of the Newbold Comyn and St Nicholas Centres buildings is underway and these centres can manage the high levels of projected usage. Further modernisation of the Abbey Fields pool site may be needed to ensure the building can accommodate the projected higher levels of usage. Maintaining the community access at the Warwick School swimming pool is important in retaining the overall supply and demand balance across the District.

9.20 The assessment and the findings will be carried forward into the update of the Warwick indoor sports and recreational facilities strategy.

Appendix 1: Swimming pools across the study area included in the assessment.

Name of Site	Type	Dimensions	Area	Site Year Built	Site Year Refurb	Car % Demand	Public Tran % Demand	Walk % Demand
WARWICK						**81%**	**8%**	**11%**
ABBEY FIELDS SWIMMING POOL	Main/General	25 x 10	250	1986	2004	72%	6%	22%
NEWBOLD COMYN LEISURE CENTRE	Main/General	25 x 13	325	1990	2017	81%	10%	9%
NEWBOLD COMYN LEISURE CENTRE	Leisure Pool	23 x 10	230					
NUFFIELD HEALTH (WARWICK)	Main/General	20 x 8	160	2001		82%	8%	9%
NUFFIELD HEALTH (WARWICK)	Learner/Teaching/ Training	9 x 9	81					
PURE HEALTH CLUB	Main/General	15 x 12	180	2007		76%	6%	18%
ST NICHOLAS PARK LEISURE CENTRE	Main/General	25 x 13	325	1983	2017	79%	7%	14%
THE WARWICKSHIRE GOLF AND COUNTRY CLUB	Main/General	20 x 10	200	2005		94%	6%	1%
THE WARWICKSHIRE GOLF AND COUNTRY CLUB	Leisure Pool	10 x 4	40					
WARWICK SCHOOL SPORTS CENTRE	Main/General	25 x 13	325	1988		84%	8%	8%
COVENTRY						**73%**	**13%**	**14%**
CALUDON CASTLE SPORTS CENTRE	Main/General	25 x 13	325	2007		72%	13%	15%
CENTRE AT7	Main/General	25 x 13	325	2014		70%	16%	14%
CENTRE AT7	Leisure Pool	20 x 8	150					
COVENTRY SPORTS & LEISURE CENTRE	Main/General	50 x 17	850	1966		65%	15%	20%
COVENTRY SPORTS & LEISURE CENTRE	Leisure Pool	15 x 10	150					
COVENTRY SPORTS & LEISURE CENTRE	Learner/Teaching/ Training	10 x 5	50					
KING HENRY VIII SCHOOL	Main/General	25 x 13	313	2009		70%	14%	16%
PRESIDENT KENNEDY SCHOOL	Main/General	18 x 9	162	1965		48%	8%	44%
SPINDLES HEALTH & LEISURE (COVENTRY)	Main/General	18 x 9	162	1999	2005	85%	8%	7%
UNIVERSITY OF WARWICK NEW SPORTS CENTRE	Main/General	25 x 25	625	2019		86%	12%	2%
VELOCITY HEALTH & FITNESS (COVENTRY)	Main/General	25 x 10	250	2000		77%	7%	16%
WARWICKSHIRE HEALTH & RACQUETS CLUB	Main/General	25 x 10	250	1996		85%	7%	8%
WARWICKSHIRE HEALTH & RACQUETS CLUB	Learner/Teaching/ Training	5 x 5	25					
WINDMILL VILLAGE HOTEL AND GOLF CLUB	Main/General	20 x 8	160	1990	2007	81%	6%	13%
XCEL LEISURE CENTRE	Main/General	25 x 10	250	2008		74%	11%	15%
SOLIHULL						**84%**	**10%**	**6%**
BANNATYNES HEALTH CLUB (SOLIHULL)	Main/General	20 x 8	150	1997	2004	87%	5%	8%
CLUB MOATIVATION (SOLIHULL)	Main/General	17 x 10	170	1990	2005	84%	5%	10%
DAVID LLOYD CLUB (SOLIHULL CRANMORE)	Main/General	25 x 13	313	1998	2014	90%	6%	5%
DAVID LLOYD CLUB (SOLIHULL CRANMORE)	Learner/Teaching/ Training	13 x 13	156					
DAVID LLOYD CLUB (SOLIHULL)	Main/General	25 x 8	200	1998		89%	5%	6%

Name of Site	Type	Dimensions	Area	Site Year Built	Site Year Refurb	Car % Demand	Public Tran % Demand	Walk % Demand
DAVID LLOYD CLUB (SOLIHULL)	Learner/Teaching/ Training	3 x 2	6					
LIVINGWELL HEALTH CLUB (BIRMINGHAM METROPOLE)	Main/General	20 x 20	400	1995	2005	93%	7%	0%
NORTH SOLIHULL SPORTS CENTRE	Main/General	33 x 13	426	1979	2008	74%	14%	12%
NORTH SOLIHULL SPORTS CENTRE	Learner/Teaching/ Training	17 x 8	128					
SAINT MARTIN'S SCHOOL	Main/General	25 x 8	200	2003		84%	11%	4%
SMITHS WOOD SPORTS COLLEGE	Main/General	20 x 7	140	2008		44%	9%	48%
SOLIHULL SCHOOL	Main/General	24 x 9	204	1970	2008	82%	11%	7%
TUDOR GRANGE LEISURE CENTRE	Main/General	25 x 18	450	2008		85%	12%	3%
TUDOR GRANGE LEISURE CENTRE	Learner/Teaching/ Training	12 x 8	96					
TUDOR GRANGE LEISURE CENTRE	Diving	12 x 8	96					
VELOCITY HEALTH & FITNESS (SOLIHULL)	Main/General	20 x 9	180	2009		92%	6%	2%
VIRGIN ACTIVE CLUB (SOLIHULL)	Main/General	25 x 10	250	2001		94%	5%	0%
VIRGIN ACTIVE CLUB (SOLIHULL)	Learner/Teaching/ Training	25 x 10	250					
VIRGIN ACTIVE CLUB (SOLIHULL)	Leisure Pool	12 x 3	36					
STRATFORD- on-AVON						**83%**	**7%**	**9%**
BILTON GRANGE SCHOOL	Main/General	25 x 10	250	1983		81%	6%	13%
NUFFIELD HEALTH RUGBY FITNESS & WELLBEING GYM	Main/General	25 x 12	300	2001		93%	5%	2%
NUFFIELD HEALTH RUGBY FITNESS & WELLBEING GYM	Learner/Teaching/ Training	5 x 5	25					
RUGBY SCHOOL SPORTS CENTRE	Main/General	25 x 10	250	1991	2003	79%	8%	13%
SPORTS DIRECT FITNESS (RUGBY)	Main/General	20 x 7	144	1994	2007	78%	5%	17%
THE QUEENS DIAMOND JUBILEE CENTRE	Main/General	25 x 20	500	2013		83%	8%	9%
THE QUEENS DIAMOND JUBILEE CENTRE	Main/General	17 x 8	136					
RUGBY						**88%**	**5%**	**8%**
SHIPSTON LEISURE CENTRE	Main/General	25 x 10	250	2005		89%	2%	9%
SOUTHAM LEISURE CENTRE	Main/General	25 x 10	250	1988	2004	88%	3%	9%
STRATFORD LEISURE CENTRE	Main/General	33 x 12	396	1975	2015	86%	5%	9%
STRATFORD LEISURE CENTRE	Learner/Teaching/ Training	12 x 10	120					
STUDLEY LEISURE CENTRE	Main/General	20 x 9	180	1971	2002	86%	6%	7%
THE CLUB AND SPA AT THE WALTON HALL HOTEL	Leisure Pool	18 x 10	180	1987	2011	97%	3%	0%
VITAL HEALTH & WELLBEING (ALVESTON MANOR)	Main/General	18 x 9	162	2003		85%	4%	11%
WILDMOOR SPA & HEALTH CLUB	Main/General	20 x 8	160	2005		92%	4%	5%

Appendix 2 – Model description, Inclusion Criteria and Model Parameters

Included within this appendix are the following:

- Model description
- Facility Inclusion Criteria
- 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 sportscotland 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[1].

[1] Award made in 2007/08 year.

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

4. Calculating Demand

4.1 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.

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)3.

4.3 The use of OAs 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 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.

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

[2] 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.

[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 171,300 OAs in England. An OA has a target value of 125 households 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.

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. Facility Attractiveness – for halls and pools only

6.1 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.

6.2 Attractiveness weightings are based on the following:

- Age/refurbishment weighting – pools & halls - the older a facility is, the less attractive it will be to users. It is recognised that this is a general assumption and that there may be examples where older facilities are more attractive than newly built ones due to excellent local management, programming and sports development. Additionally, the date of any significant refurbishment is also included within the weighting factor; however, the attractiveness is set lower than a new build of the same year. It is assumed that a refurbishment that is older than 20 years will have a minimal impact on the facilities attractiveness. The information on year built/refurbished is taken from Active Places. A graduated curve is used to allocate the attractiveness weighting by year. This curve levels off at around 1920 with a 20% weighting. The refurbishment weighting is slightly lower than the new built year equivalent.

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

6.3 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.

6.4 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.

7. Comfort Factor – halls and pools

7.1 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 =1 user /6m2 , halls = 6 users /court). This is gives each facility a "theoretical capacity".

7.2 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.

7.3 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).

7.4 The comfort factor is used in two ways;

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

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

8. Utilised Capacity (used capacity)

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

8.2 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.

8.3 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

8.4 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%.

8.5 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'.

9. Travel times Catchments

9.1 The model uses travel times to define facility catchments in terms of driving and walking.

9.2 The Ordnance Survey (OS) Integrated Transport Network (ITN) for roads has been used to calculate the off-peak drive times between facilities and the population, observing one-way and turn restrictions which apply, and taking into account delays at junctions and car parking. Each street in the network is assigned a speed for car travel based on the attributes of the road, such as the width of the road, and geographical location of the road, for example the density of properties along the street. These travel times have been derived through national survey work, and so are based on actual travel patterns of users. The road speeds used for Inner & Outer London Boroughs have been further enhanced by data from the Department of Transport.

9.3 The walking catchment uses the OS Urban Path Network to calculate travel times along paths and roads, excluding motorways and trunk roads. A standard walking speed of 3 mph is used for all journeys.

9.4 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.

9.5 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%

9.6 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%