



**Shropshire Council**

**Local Assessment of Swimming Pool provision  
in Shrewsbury**

**Facility Planning Model  
Final version**

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## Introduction

The Facilities Planning Model (FPM) provides an opportunity to test out possible changes to supply and demand for swimming provision and to identify how potential pool closures and new provision could impact on other existing facilities in Shrewsbury and beyond. The FPM analysis will assess:

- How the current demand for water space is met by the current supply and distribution of pools in Shrewsbury and the surrounding study area.
- The projected impact of population change in Shrewsbury and the surrounding area on supply and demand for swimming pools in the period up to 2026.
- The implications of swimming pool provision in Shrewsbury and the wider study area from modelled changes including policy options for a replacement Quarry pool.

To address the objectives above, the assessment has considered the current situation in Shrewsbury, the situation in 2026 taking into account projected population changes (from planned housing growth) before proceeding to test the implications on the provision of two possible options for the replacement of the Quarry pool. This report sets out the findings of the runs of the model.

This report is intended to **assist** Shropshire Council and its partners in reaching a decision on a way forward by providing an indication of the likely implications of different courses of action. **It does not attempt to recommend a preferred option.** It will be for the Council and its partners to consider the advice in the report along with other factors before deciding on a way forward.

This report firstly provides some explanation of the FPM (Section 2) and provides some background to this assessment (Section 3). Sections 4 - 6 summarise the key findings from the different runs of the model and Section 7 draws together some overall conclusions.

Accompanying this summary report are separate Appendices, which have been produced separately for ease of reference.

## **Section 2 - The Facilities Planning Model Explained**

The Facilities Planning Model has been developed as a planning tool to inform the process of deciding if and where major new community sports facilities are needed. It provides an objective assessment of the relationship between the level of **supply** of sports facilities required to meet the estimated **demand** from the population in a given area in the peak period. It is assumed in the application of the model that it is a policy objective of local authorities to meet demand from the resident population as far as can reasonably be expected. The **catchment area** provides the spatial link between supply and demand.

The assumptions incorporated into the FPM in relation to each of the components have been derived initially from a national survey of the use and management of swimming pools and swimming pools in 1997, together with updated user survey data from a range of sources including user data from the National Benchmarking Service.

### **Supply**

Within the FPM, supply is defined by the location and capacity of sports facilities. Capacity is a function of:

- the number and size of facilities at a particular site, and
- the available hours for public use within the peak period.

The model assumes an average 'at one time' capacity for each swimming pool. This is multiplied by the number of hours that the hall is available within the weekly peak period, which provides an estimated number of visits per week in the peak period (vpwpp) that can be accommodated at each site. In the case of a 25m, 4 lane swimming pool, available for public and/or club use for all of the weekly peak period, this figure is about 1700 vpwpp.

### **Demand**

Demand is estimated by applying to each of 12 age/gender groups within the resident population of each enumeration district:

- a 'rate of participation' (i.e. the proportion of a given population that is likely to express a demand to use a particular type of sports facility); and
- a 'frequency rate' (i.e. the number of times likely users of a particular type of sports facility will visit each week).

This produces a total for the likely number of visits in a typical week from the population. As the assessment is concerned with identifying the level of supply required to meet demand at the peak time, this total is then adjusted to take account of the proportion of visits in the peak period (i.e. Mon-Fri 12.30-1.30pm & 4pm -

10pm; Sat & Sun 9am - 4pm). This produces an estimate of the number of visits per week in the peak period. Demand can thus be compared directly with supply. The model takes no account of demand from non-residents, i.e. tourists/visitors, nor does it take account of educational requirements within the school curriculum.

### **Catchment Area**

There is a limit to which regular users of sports facilities are prepared to travel, defined in the model in terms of time rather than distance. Three modes of travel are taken into account in the analysis - by car, by public transport and on foot.

The model uses a catchment area for each facility of 30 minutes for each mode of travel. However, within this there is a 'distance decay' function, based on the concept that the willingness to travel declines with distance. Travel times used in the model are derived from the survey data, suggests that about 60% of all users of swimming pools and swimming pools travel up to 10 minutes, and about 87% travel up to 20 minutes. Only about 8% of visitors travel between 20 and 30 minutes, with the remaining 5% travelling more than 30 minutes.

The modal split in any one area is determined by local car ownership levels derived from census information. By applying average road speeds to different types of roads in the local road network, time can be translated into distance for those who arrive by car or public transport. The definition of catchment areas is thus sensitive to local circumstances. The road network and road speeds use Ordnance Surveys, Integrated Transport Network (ITN) data.

### **Interpreting the Results**

In interpreting the results, it should be remembered that the FPM is a 'planning tool', developed to inform the policy making process in relation to the planning and development of community sports facilities. It should be seen as a guide to policy for the provision of facilities, not replacing it. The model outputs must be interpreted in the light of local circumstances and aspirations.

## **Section 3 – Background to the assessment**

### **The Study Area**

The focus of the report is Shrewsbury given that the purpose of the study is to assess options for replacing the existing Quarry pool in the town. Shrewsbury cannot be considered in isolation from other surrounding areas as users of sports facilities are not limited in their choice of where to express demand by local authority administrative boundaries. The report therefore focuses on Shrewsbury (the former Shrewsbury & Atcham BC area referred to as Shropshire Central within this report), but takes into account supply and demand in the following adjoining areas:

- Shropshire North (formerly Oswestry BC & North Shropshire DC)
- Shropshire South (Formerly South Shropshire DC & Bridgnorth DC)
- Telford & Wrekin Council

### **Supply and Demand Parameters**

Appendix 1 sets out the parameters used in the model to provide estimates of demand for, and supply of, swimming pools. Appendix 2 sets out the main assumptions in the modelling process.

### **Facilities Database**

The Facilities Database for the study area has been checked by the local authority for accuracy and omissions. Data checking of facilities within those districts surrounding the study area has also been undertaken, and any amendments required have also been provided back to Sport England.

### **Facilities Weightings**

An attractiveness weighting has been included for individual Facilities. This is based on the age and refurbishment date of the facility. An assumption is made that a more modern facility will be more attractive to users than an older facility. Additionally, the populations (at output level) Index of Multiple Deprivation (IMD) score is used to give the propensity of that population to visit a commercial facility. The assumption of the model is that less affluent areas (higher IMD score) will be less like to use these facilities due to cost.

### **Runs undertaken**

The runs which have been undertaken in this assessment are as follows:

### **RUN 1: Existing position 2015 - weighted**

Current supply of swimming pools (with updated/checking of existing facilities data), based on 2015 population estimates.

### **RUN 2: 2026 population with the closure of the existing Quarry Pool and provision of a replacement pool at the same site**

As Run 1 with:

- 2026 bespoke population projections.
- **CLOSE** – Quarry Swimming Pool (Site ID 1005846).
- **OPEN** – Quarry Swimming Pool replacement – 25m x 8 lane main pool (25m x 20m = 500 sqm) plus learner pool (20m x 10m = 200 sqm) on existing site (Site ID 1005846). Open 2018.

### **RUN 3: 2026 population with the closure of the existing Quarry Pool and provision of a replacement pool at Shrewsbury Sports Village**

As Run 1 with:

- 2026 bespoke population projections.
- **CLOSE** – Quarry Swimming Pool (Site ID 1005846).
- **OPEN** – Quarry Swimming Pool replacement – 25m x 8 lane main pool (25m x 20m = 500 sqm) plus learner pool (20m x 10m = 200 sqm) at Shrewsbury Sports Village (Site ID 1014554). Open 2018.

## **Section 4: Run 1 Analysis**

This section of the report considers the existing position in Shropshire Central and the wider study area. The model has been run based on the data contained on Sport England's Active Places Database which has been checked and verified by the Council.

In order to provide a structured commentary on the supply and demand issues for pool provision, the overview is divided into a number of sub sections. An overall summary of the run is then provided, which draws together the key points for consideration.

### **Demand for swimming provision in Shropshire Central**

For the purposes of this modelling exercise, the population in Shropshire Central in 2015 is 104,011 people. This is derived from the 2011 census and ONS forward projections. This population generates an estimated demand for swimming which amounts to about 6,400 visits per week in the peak period (vpwpp).

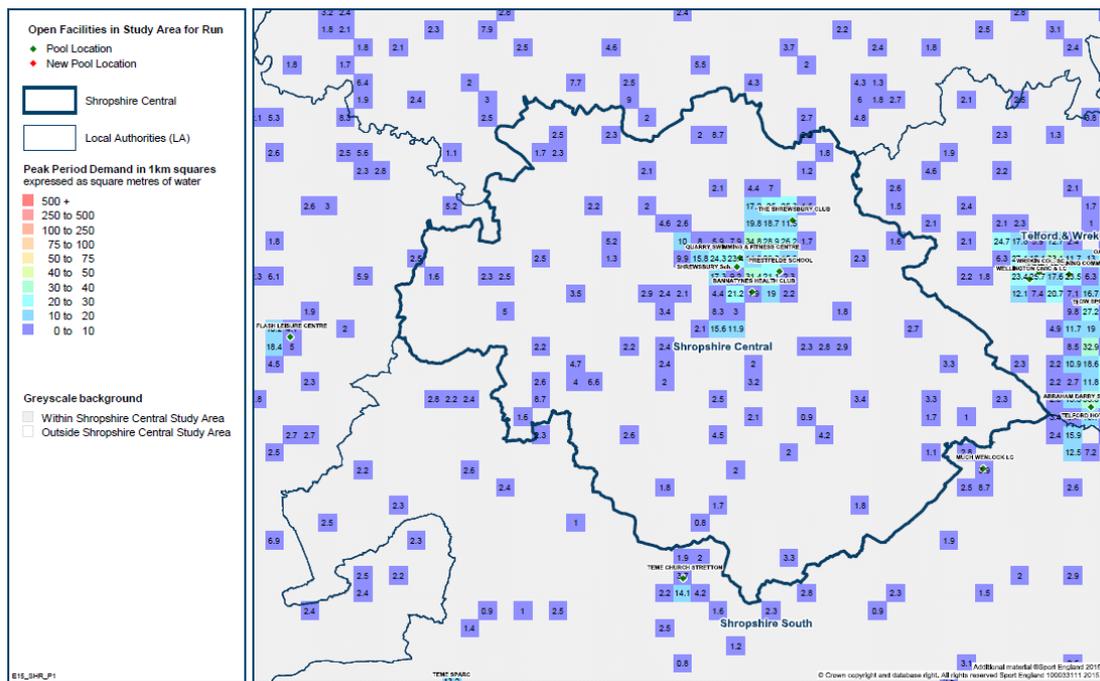
The table below in Figure 1 shows demand as vpwpp per 1000 persons and compares Shropshire Central with the study area and the national and regional average. Shropshire Central has a **lower demand per head than the national and regional averages and the surrounding areas**, reflecting its relatively older population.

**Figure 1: Run 1 demand as vpwpp per 1000 persons**

	<b>2015</b>
ENGLAND	63.7
WEST MIDLANDS	63.4
<b>Shropshire Central</b>	<b>61.8</b>
Shropshire North	61.5
Shropshire South	59.9
Telford & Wrekin UA	64.3
Powys	59.8

Figure 2 overleaf illustrates areas of demand within Shropshire Central, with the greater demand concentrations represented by the warmer colours. The north and east of Shrewsbury appears to generate higher levels of demand reflecting the concentration of people in this part of the town.

**Figure 2: Run 1 demand**



An important aspect of understanding local demand is the propensity to travel due to whether users have access to private transport or not. Those who have access to a private car are more mobile and are more likely to travel greater distances than those who rely on public transport or being able to walk to facilities. **Nearly 18% of swimmers in Shropshire Central do not have access to a car, which is lower than the national average (25%) and indicates that they are more mobile.** The impact this has on whether swimmers are able to access facilities is explored under the satisfied demand/unmet demand' headings.

### **The supply of swimming pools in Shropshire Central**

There are 8 pools at 5 sites within Shropshire Central and their locations, together with facilities in surrounding authorities are illustrated on Figure 3 overleaf. Figure 3 also shows the indicative 20 minute walking and driving catchments of the pools.

In Run 1 the total amount of water space in Shropshire Central is 1,631 sqm which is equivalent to 15.7 sqm per 1,000 people.



concentration of pool provision in Shrewsbury and the location of pools in Shropshire South which are near the border with Shropshire Central. (see Figure 3).

As is to be expected, the model estimates that the vast majority of all visits are made by users travelling by car (84%), with 9% by foot and 7% by public transport.

**Unmet demand – Shropshire Central demand not being met by the existing network of provision**

The model estimates that approximately 590 vpwpp are currently not being satisfied, which equates to just under 9% of total demand for swimming pools. When expressed as water space this is equivalent to 98 sqm (less than half of a 25m x 4 lane pool) although it should be remembered that this is a ‘global’ figure which applies to the whole of the Shropshire Central area.

The main reason for unmet demand (96%) is due to users who wish to access swimming provision but who choose not to travel because of the distance they live from the nearest facility. The majority are residents who do not have access to a car, thus restricting the number of pools available to them. A very small proportion (approximately 4%) of unmet demand in Shrewsbury is due to insufficient capacity at sites i.e. pools that are full and cannot absorb any additional demand.

**Location of Unmet demand**

**Figure 4: Run 1 unmet demand**

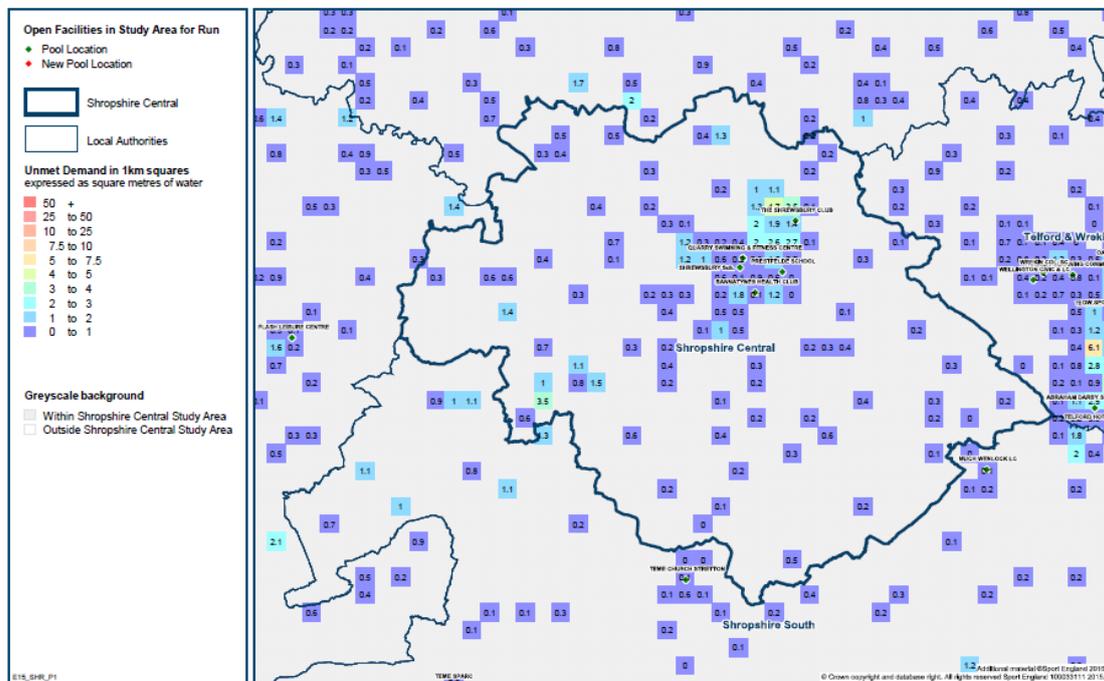


Figure 4 above illustrates that unmet demand is relatively low but that **concentrations are greatest on the outskirts of Shrewsbury, particularly the north east.**

### **Pool Usage & Capacity**

The model considers that in the peak demand period, **nearly 58% of the overall water space is utilised, which is lower than the 70% figure at which a pool is considered to be ‘comfortably full’.** It should be recognised that it may not be realistic, or desirable to aim for use of pools to operate at 100% of their theoretical capacity. Sport England can provide further information on how the model allocates demand when pools are starting to become full.

Figure 5 below provides a breakdown of used capacity for pools in Shropshire Central and a comparison against Authorities in the wider study area. The model estimates **that the Quarry Swimming & Fitness Centre utilises just over half of its capacity with two pools (Prestfelde School and Shrewsbury School) being at 100% capacity.**

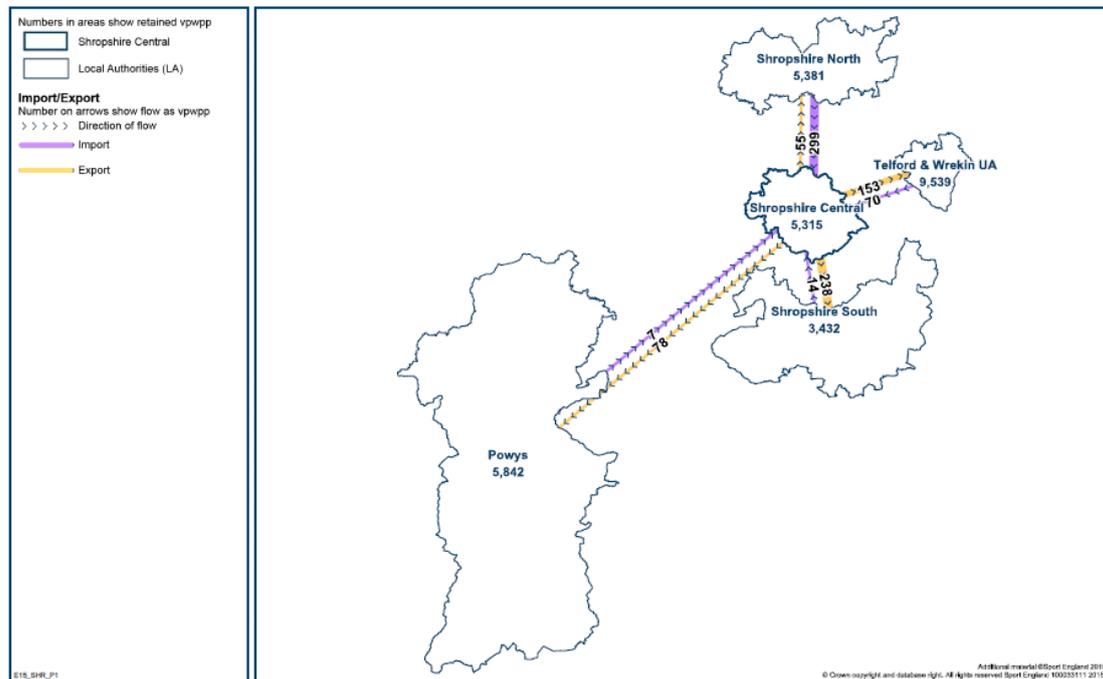
**Figure 5: Run 1 used capacity**

<b>STUDY AREA</b>	<b>RUN 1</b>
<b>Individual Sites Utilised Capacity</b>	<b>2015</b>
<b>FPM TOTAL</b>	<b>64</b>
<b>ENGLAND TOTAL</b>	<b>65</b>
<b>WEST MIDLANDS TOTAL</b>	<b>73</b>
<b>AREA TOTAL</b>	<b>53</b>
<b>Shropshire UA</b>	<b>51</b>
<b>Shropshire Central</b>	<b>58</b>
BANNATYNES HEALTH CLUB (SHREWSBURY)	68
PRESTFELDE SCHOOL	100
QUARRY SWIMMING & FITNESS CENTRE	51
SHREWSBURY SCHOOL	100
THE SHREWSBURY CLUB	53
<b>Shropshire North</b>	<b>50</b>
<b>Shropshire South</b>	<b>45</b>
<b>Telford &amp; Wrekin UA</b>	<b>83</b>
<b>Powys</b>	<b>35</b>

### **Import of swimmers into Shropshire Central**

The model considers that approximately 7% of visits (circa 390 vpwpp) are ‘imported’ into Shropshire Central. When this ‘import’ effect is explored further, the majority of the visits (circa 300) are believed to come from Shropshire North reflecting the relative proximity of Shrewsbury to residents in this area. The import and export values are indicated in Figure 6 below.

**Figure 6: Run 1 imported exported demand**



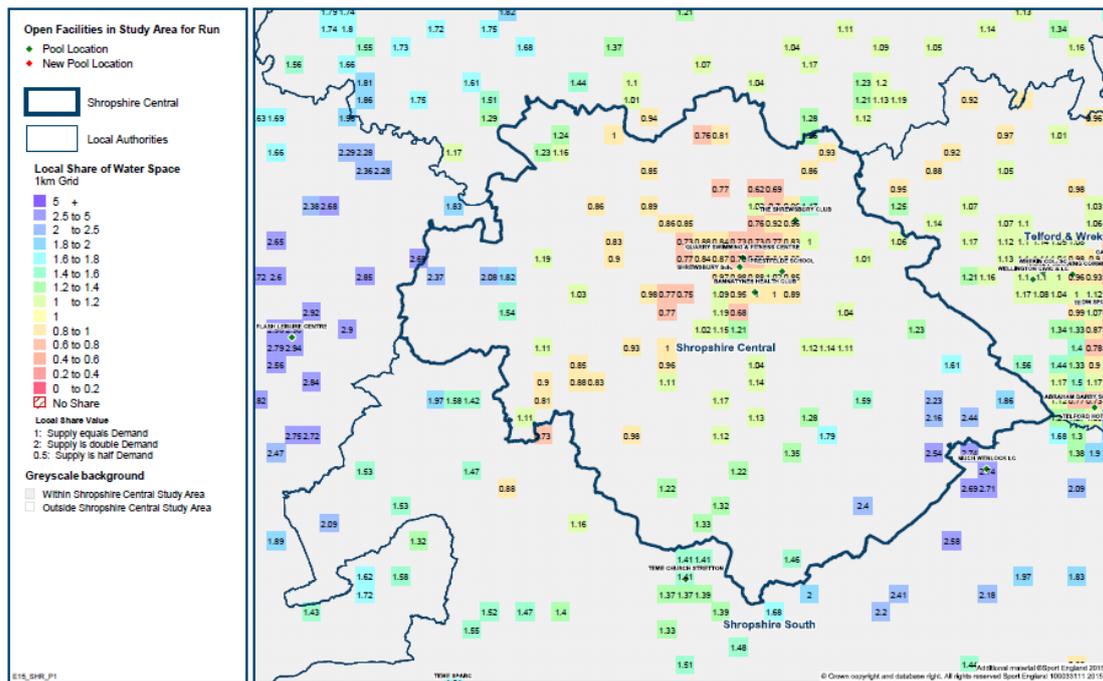
### **Relative Share**

Relative share is an expression of the share of facilities that residents in Shropshire Central have compared to the national average. A simple description of relative share is to consider pool provision as a cake, its size being proportionate to the facility's capacity i.e. the area of water space and the number of hours available for use.

The relative share analysis divides the 'capacity cake' amongst the number of users who are within the catchment of pool provision. The figures used within relative share analysis are therefore 'capacity units per demand units'. These are calculated at output level, and aggregated to 1km squares within the maps. These figures are then compared to the national relative share which is an index of 100 with relative share being expressed as = or - 100.

In Run 1 the relative share in Shropshire Central is 84.1 which is -15.9. The pattern of relative share is set out in Figure 7 which shows that share is relatively poor around Shrewsbury but better at the outer areas.

**Figure 7: Run 1 relative share**



**Key points and Summary from Run 1**

1. The residents of Shropshire Central are estimated to generate a demand for swimming provision of about 6,400 vpwpp. The current supply can accommodate about 9,900 vpwpp. If Shropshire Central was looked at as an Island therefore, the current supply of pools is more than the demand within the area.
2. Furthermore, evidence of a good level of supply is reflected in satisfied demand (the number of swims demanded that can be satisfied) in Shropshire Central which is estimated to be nearly 91%, comparable to the regional and national averages.
3. The majority of demand (nine out of every ten swims) is expressed in pools in Shropshire Central (retained demand) with approximately 7% of swims in the area being from residents from adjoining areas (imported demand).
4. However, the pool network in Shropshire Central is less than 60% utilised which is below the 70% figure which is considered to be comfortably full indicating that there is capacity to absorb additional demand.
5. Unmet demand is relatively low (approx. 600 vpwpp) and is made up mainly of swimmers who do not have access to a car and live too far from their nearest facility for them to travel. There are relatively minor concentrations of unmet demand within Shrewsbury mainly to the north east of the town.

## **Section 5 – Run 2 Analysis**

Run 2 assesses the situation in 2026 using Shropshire Council population projections and incorporates planned changes to swimming pool provision; comprised of the closure of the Quarry Swimming & Fitness Centre and the provision of a replacement facility (25m x 8 lane pool plus learner pool) at the existing site.

The population forecast is based on Shropshire Council population projections derived from planned housing growth.

### **Impact on demand**

The 2026 population projection for Shropshire Central is 118,321; an increase of over 14,000 (13.5%) from Run 1. This increase in population translates into a demand increase of approximately 600 vpwpp (9.5%) from 6,400 vpwpp to just over 7,000 vpwpp. **The demand per head in Shropshire Central in 2026 (see Figure 9) is still below the national/regional averages although it is above those in surrounding areas apart from Telford and Wrekin.**

**Figure 9: Run 2 demand per head**

	vpwpp per 1000 people	
	2015	2026
ENGLAND	63.7	62.4
WEST MIDLANDS	63.4	62.1
<b>Shropshire Central</b>	<b>61.8</b>	<b>59.5</b>
Shropshire North	61.5	59.3
Shropshire South	59.9	57.5
Telford & Wrekin UA	64.3	62.4
Powys	59.8	57.3

### **Supply within Shropshire Central and the wider study area**

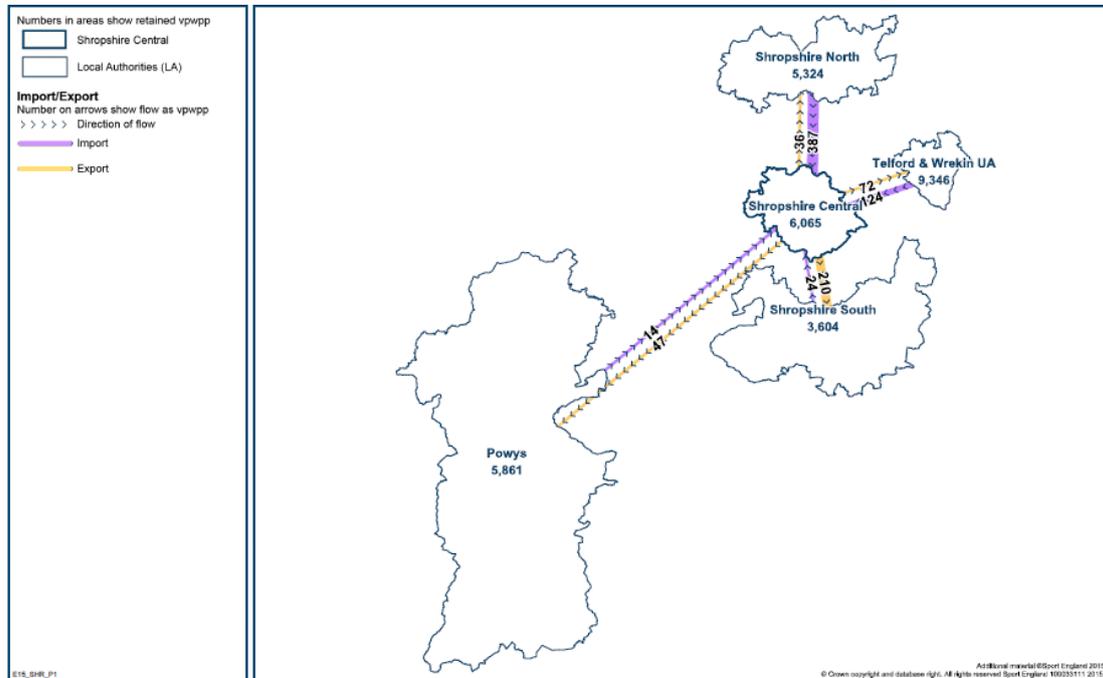
There are six pools on five sites in Shropshire Central in Run 2 with a capacity of 9,250 vpwpp; a reduction of two pools (the existing Quarry Pool has four pools which is reduced to two in the proposed replacement) and 650 vpwpp from Run 1.

The total supply of water space is now 1,472 sqm which is 160 sqm lower than Run 1 which is equivalent to 12.4 sqm per 1,000 people (it is 15.7 sqm/1,000 in Run 1).



In addition there is an increase in the level of demand from Shropshire Central residents that is retained which increases from 91% to just over 94%; which is equivalent to 700 vpwpp. As a consequence the level of exported demand declines from 9% to nearly 6%. See Figure 11 for the pattern of imported – exported demand.

**Figure 11: Run 2 imported and exported demand**



**Used capacity increases in Run 2**

The pool network in Shropshire is less than 60% full in Run 1 but this increases to 71% in Run 2. Utilisation in individual pools varies and the model estimates that the new Quarry Pool replacement will be 82% full and will attract swimmers from other pools in Shropshire Central leading to a decrease in used capacity at these pools. This is shown in Figure 12 below.

**Figure 12: Run 2 Used Capacity**

STUDY AREA	RUN 1	RUN 2
<b>Individual Sites Utilised Capacity</b>	<b>2015</b>	<b>2026</b>
<b>FPM TOTAL</b>	<b>64</b>	<b>67</b>
<b>ENGLAND TOTAL</b>	<b>65</b>	<b>68</b>
<b>WEST MIDLANDS TOTAL</b>	<b>73</b>	<b>75</b>
<b>AREA TOTAL</b>	<b>53</b>	<b>55</b>
<b>Shropshire UA</b>	<b>51</b>	<b>56</b>
<b>Shropshire Central</b>	<b>58</b>	<b>71</b>
BANNATYNES HEALTH CLUB (SHREWSBURY)	68	49
PRESTFELDE SCHOOL	100	66
QUARRY SWIMMING & FITNESS CENTRE	51	0
QUARRY REPLACEMENT	0	82

SHREWSBURY SCHOOL	100	67
THE SHREWSBURY CLUB	53	41
<b>Shropshire North</b>	<b>50</b>	<b>50</b>
<b>Shropshire South</b>	<b>45</b>	<b>49</b>
<b>Telford &amp; Wrekin UA</b>	<b>83</b>	<b>80</b>
<b>Powys</b>	<b>35</b>	<b>35</b>

**While a more even spread of used capacity may contribute to a sustainable network in the sub area it is based on the intensive use of the Quarry replacement facility which at 82% full is well above the 70% comfort factor threshold.**

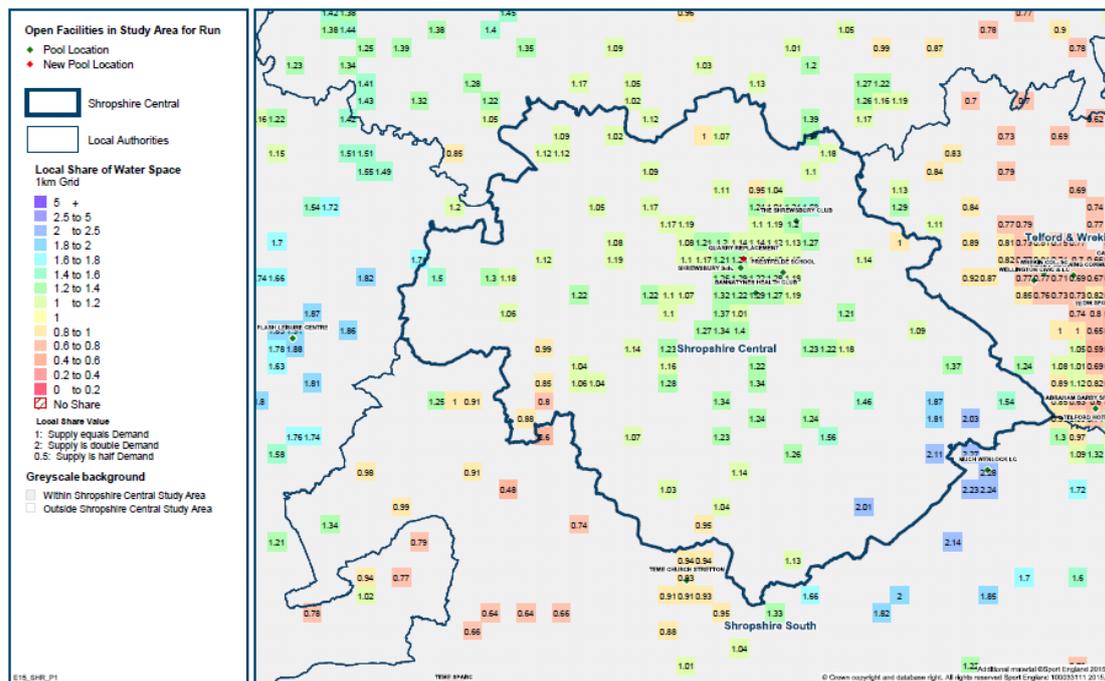
The model also estimates that throughput (the number of individual swims) at the Quarry Pool **increases by 34% from 257,000 in Run 1 to 344,000 in Run 2**, although the increase in Shropshire Central is a more modest 10% reflecting the re-distribution of swimmers from other pools in the sub area to the new Quarry Pool.

### **Relative Share improves**

Relative Share in Shropshire Central improves in Run 2 with an index of 156.6 which is 56.6 above the national average. The pattern of relative share (see Figure 13 below) shows an improvement across the Shropshire Central Area except for a small pocket at the border with Shropshire South around Pontesbury.

It is perhaps counter intuitive to expect relative share to improve in Run 2 given the changes outlined earlier e.g. increased demand and reduced supply. It should be remembered that the position in Shropshire Central is compared to the national average and relative to this the situation improves in Run 2.

**Figure 13: Run 2 Relative Share**



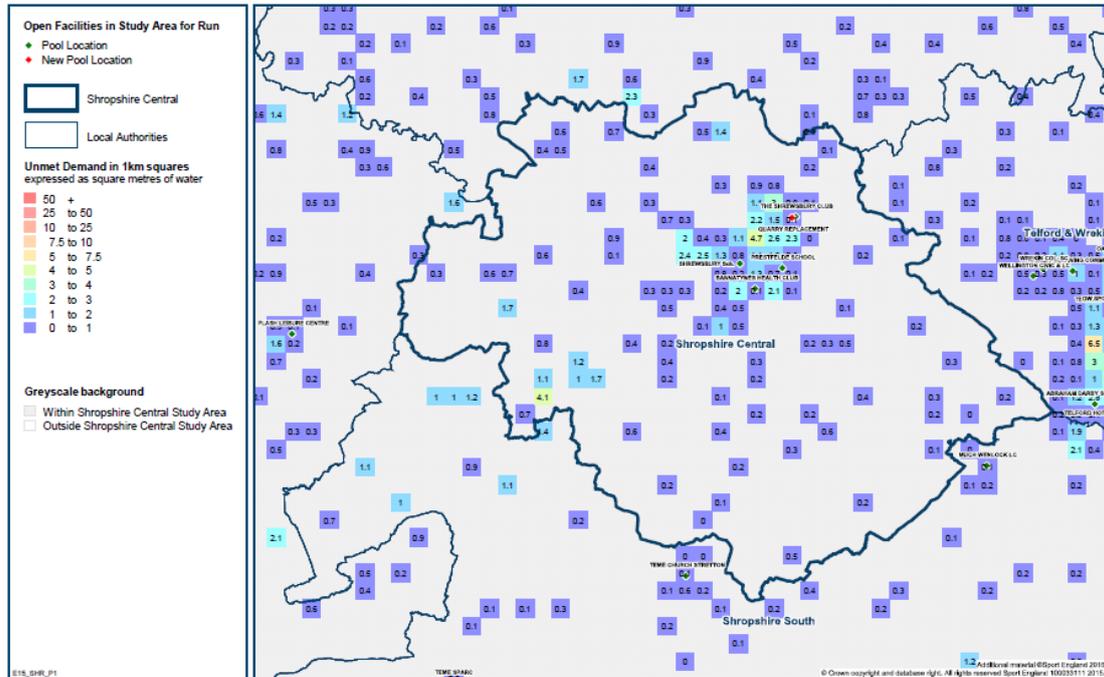
**Key points and Summary from Run 2**

1. This run has modelled changes to both supply and demand, including the replacement of the Quarry pool together with increased demand from population growth to 2026.
2. There is a 9.5% increase in demand which is due to a 13.5% projected growth in population. Residents in Shropshire have a relatively modest propensity to swim reflecting the older population profile.
3. There is a slight increase in satisfied demand from 90.8% in Run 1 to 91.3% in Run 2; which is above the national and regional averages.
4. In addition, there is a noticeable increase in the level of used capacity in Shropshire Central with the new Quarry Pool estimated to be 82% full on opening; with the replacement pool attracting swimmers from other pools in the sub area reflecting the impact of a large attractive new water space.

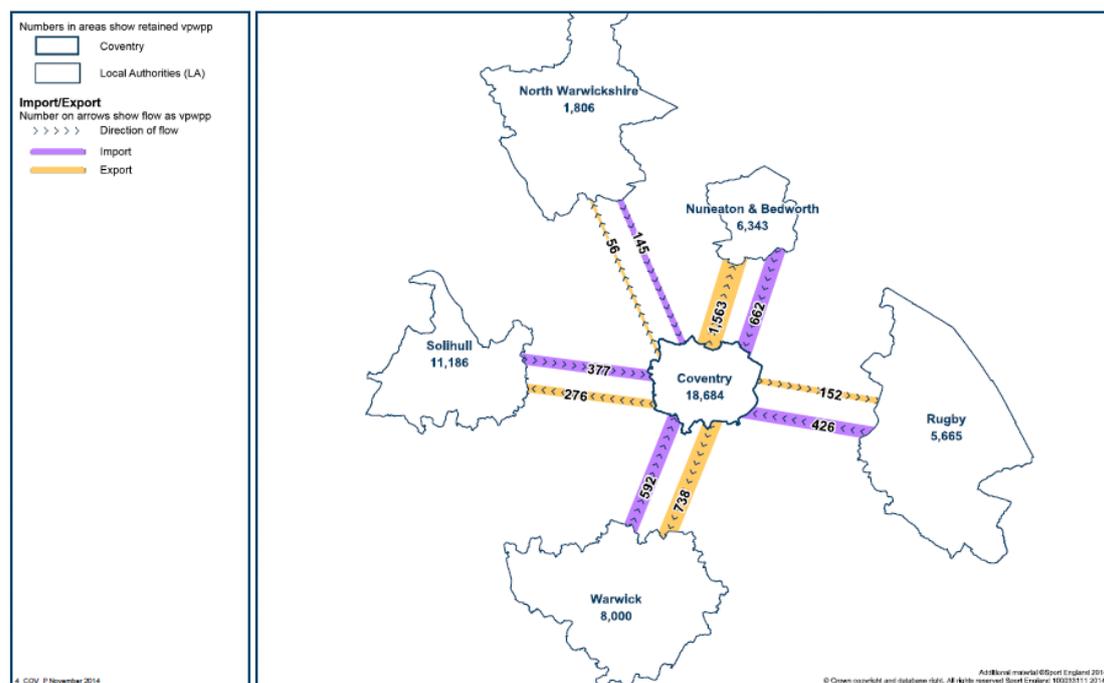


Given the location of the replacement Quarry Pool at the Sports Village in the north east of Shrewsbury it is not surprising that unmet demand improves in this area although the levels of unmet demand increase in the area bordering Shropshire South near Pontesbury (see Figure 15). The pattern of imported and exported demand is similar to Run 2 and is highlighted in Figure 16.

**Figure 15: Run 3 unmet demand**



**Figure 16: Run 3 imported and exported demand**



### Run 3 used capacity

The Run 3 option (with the replacement Quarry Pool located at the Sports Village) results in an increase in used capacity from 58% in Run 1 to 74% in this run. The more intensive use of the pool network is the result of the increase in demand (due to population growth) and a reduced level of supply.

The pattern of used capacity is similar to Run 2 with the new Quarry Pool being relatively full on opening (77%) reflecting its relative attractiveness. The model estimates that the new pool has an **annual throughput of 322,000 which is significantly higher than the current facility (257,000) although slightly lower than the Run 2 option** indicating that the pool will be less intensively used. The pattern of used capacity is set out in Figure 17 below.

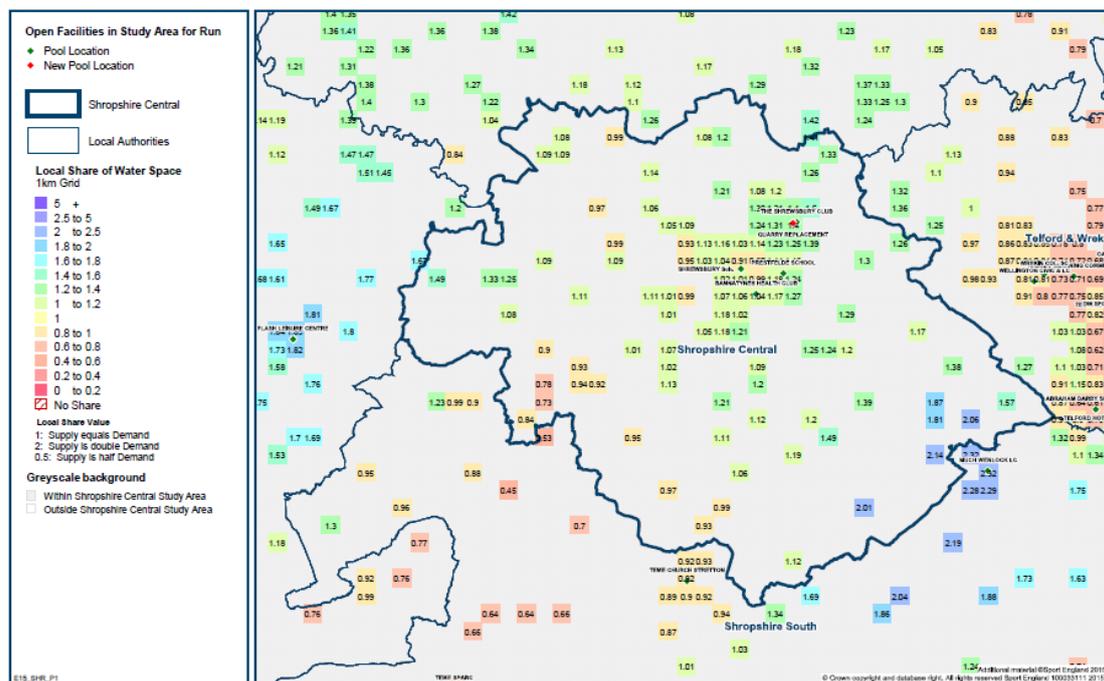
**Figure 17: Run 3 used capacity**

STUDY AREA	RUN 1	RUN 2	RUN 3
<b>Individual Sites Utilised Capacity</b>	<b>2015</b>	<b>2026</b>	<b>2026</b>
<b>FPM TOTAL</b>	<b>64</b>	<b>67</b>	<b>67</b>
<b>ENGLAND TOTAL</b>	<b>65</b>	<b>68</b>	<b>68</b>
<b>WEST MIDLANDS TOTAL</b>	<b>73</b>	<b>75</b>	<b>75</b>
<b>AREA TOTAL</b>	<b>53</b>	<b>55</b>	<b>55</b>
<b>Shropshire UA</b>	<b>51</b>	<b>56</b>	<b>56</b>
<b>Shropshire Central</b>	<b>58</b>	<b>71</b>	<b>74</b>
BANNATYNES HEALTH CLUB (SHREWSBURY)	68	49	80
PRESTFELDE SCHOOL	100	66	95
QUARRY SWIMMING & FITNESS CENTRE	51	0	0
QUARRY REPLACEMENT	0	82	77
SHREWSBURY SCHOOL	100	67	100
THE SHREWSBURY CLUB	53	41	30
<b>Shropshire North</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Shropshire South</b>	<b>45</b>	<b>49</b>	<b>48</b>
<b>Telford &amp; Wrekin UA</b>	<b>83</b>	<b>80</b>	<b>78</b>
<b>Powys</b>	<b>35</b>	<b>35</b>	<b>36</b>

### Run 3 relative share

Relative share in Shropshire Central improves significantly from Run 1 from 84 to 151 due to the replacement pool at the Sport Village. Figure 18 below shows the pattern of relative share which shows improvements in the share to the east of Shrewsbury (compared to Run 2) and a subsequent decline to the west of the town.

**Figure 18: Run 3 relative share**



**Key points and summary from Run 3**

1. This run considers the implications in terms of supply and demand of closing the Quarry Pool and replacing it at Shrewsbury Sports Village.
2. The proposal has a positive impact on supply and demand (compared to Run 1) with comparable levels of satisfied demand although it should be remembered that this run factors in a planned population growth to 2026 and a reduction in the supply of water space.
3. This is achieved to some extent by the more intensive use of the new Quarry Pool which is 75% full on opening; a figure considered comfortably full.

## **Section 7 – Overall conclusions and Recommendations**

This modelling exercise has been undertaken to inform the strategic planning of swimming pool facility provision in the Shropshire Central area to inform investment in pool provision in Shrewsbury. It has addressed supply and demand in the area and the wider study area. The conclusions drawn from the study need to address the following three key questions to inform decisions by partners on pool provision:

- How effective is the current supply and distribution of pool provision in the Shropshire Central area in meeting the demand from residents?
- What is the likely impact of population growth (from planned housing) on the supply and demand for water space up to 2026?
- How effective are the proposed two alternative swimming pool proposals in meeting the demand from residents up to 2026?

### **How effective is the current supply and distribution of pool provision in Shropshire Central in meeting the demand from residents**

The Shropshire Central area can be considered to have a good level of pool provision evidenced by the relatively high levels of satisfied demand which is comparable to the regional average and shows that the vast majority of residents that want to swim are able to do so. At present over 90% of the swims demanded by residents can be satisfied at pools within the area with limited demand 'exported' to/imported from adjoining Local Authorities/areas.

This is due to a very good level of supply which is well distributed across Shrewsbury, and a relatively affluent and mobile population that is able to travel and access a range of pools including private sector provision. There are no significant areas of unmet demand apart from a small pocket to the north east of Shrewsbury.

If the level of demand were to remain constant it could be argued that there is scope to reduce the level of water space in Shrewsbury as the pool network is little more than half full. However, with an ageing Local Authority pool and significant population growth planned in Shrewsbury, the Council and its partners need to plan for growth in demand and how investment in new/replacement pools can be optimised.

### **What is the likely impact of population growth on the on supply and demand for swimming pools up to 2026?**

The changes modelled in Runs 2 and 3 do have an impact on the demand for pools although with an older population profile (compared to the national picture) the projected growth in demand is not equivalent to the level of population growth. That said, demand does increase by nearly 10% but this can be met by the existing pool network with no significant impact on the level of satisfied demand which remains broadly in line with the current percentage.

There are no significant spatial implications from the planned population growth which is due in large part to a relatively affluent and mobile population than can travel to express demand for water space. There are marginal impacts on the pattern of unmet demand from the two locations modelled in Runs 2 and 3 and this is addressed in the next section.

### **How effective are the proposed swimming pool options in meeting the demand from residents up to 2026?**

While the two options modelled in Runs 2 and 3 propose a reduction in the supply of water space (the new replacement pool is 200 sqm less than the existing Quarry Pool) the level of satisfied demand is broadly the same as the current position. The option modelled in Run 2 (a replacement on the current Quarry pool site) does appear to be marginally more effective at meeting local demand than Run 3 (a replacement at the Sports Village) although in practice this difference is equivalent to only 60 vpwpp.

This positive position, however, is achieved through a more intensive use of the pool network in the area, particularly the replacement Quarry Pool, which for both options is relatively full on opening. Under the Run 2 option the Quarry Pool is 82% full which is appreciably higher than the 70% comfort factor threshold which does raise concerns about the capacity of the pool to absorb further demand without impacting on the swimming experience.

The data from the modelling work indicates that the amount of water space proposed is sufficient to meet future demand. If additional water space is required then it is recommended that the Council works with local partners to optimise the use of the existing pool network rather than investing in new pool provision. For example, Shrewsbury School and Prestfelde could extend their hours of community access to create additional capacity.

The two options have considered a town centre versus an out of centre location and the evidence from the modelling exercise indicates that the differences between the two options is fairly minimal.

The Run 2 option is more effective at meeting demand (91.3% satisfied demand versus 90.5% for Run 3) but the difference in vpwpp is marginal. The Run 3 option does have the advantage of being located in the north east of Shrewsbury; an area of relatively high unmet demand where mobility is lower. However, if the Council is minded to choose this type of location then consideration should be given to improving public transport routes to maximise accessibility by residents without access to a car.

## Appendix 1 Swimming Pools Parameters

*Parameters used in Facility Planning Model Assessment for Swimming Pools*

<b>At one Time Capacity</b>	0.1667 m <sup>2</sup> per swimmer. = 1 person per 6m <sup>2</sup> Approximately 36 swimmers in a 25m x 8.5m = 4 lane pool before comfort factor																		
<b>Throughput</b>	Throughput = Demand in vpwpp x 48 weeks / 0.63																		
<b>Catchments</b>	Car: 15 minutes Walking: 1.6 km Public transport: 15 minutes car equivalent Approximate as all are subject to distance decay curves																		
<b>Duration of visit</b>	64 minutes tanks; 68 minutes leisure pools																		
<b>Participation</b>	<table border="1"> <thead> <tr> <th></th> <th>0-15</th> <th>16-24</th> <th>25-39</th> <th>40-59</th> <th>60-79</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>13.23</td> <td>10.86</td> <td>13.73</td> <td>8.13</td> <td>3.93</td> </tr> <tr> <td>Female</td> <td>12.72</td> <td>14.51</td> <td>18.89</td> <td>10.44</td> <td>4.52</td> </tr> </tbody> </table>		0-15	16-24	25-39	40-59	60-79	Male	13.23	10.86	13.73	8.13	3.93	Female	12.72	14.51	18.89	10.44	4.52
	0-15	16-24	25-39	40-59	60-79														
Male	13.23	10.86	13.73	8.13	3.93														
Female	12.72	14.51	18.89	10.44	4.52														
<b>Frequency</b>	<table border="1"> <thead> <tr> <th></th> <th>0-15</th> <th>16-24</th> <th>25-39</th> <th>40-59</th> <th>60-79</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>0.92</td> <td>0.84</td> <td>0.71</td> <td>0.94</td> <td>1.18</td> </tr> <tr> <td>Female</td> <td>0.95</td> <td>0.76</td> <td>0.79</td> <td>0.81</td> <td>1.07</td> </tr> </tbody> </table>		0-15	16-24	25-39	40-59	60-79	Male	0.92	0.84	0.71	0.94	1.18	Female	0.95	0.76	0.79	0.81	1.07
	0-15	16-24	25-39	40-59	60-79														
Male	0.92	0.84	0.71	0.94	1.18														
Female	0.95	0.76	0.79	0.81	1.07														
<b>Peak Period</b>  <b>Percentage in the Peak Period</b>	Weekdays: 12:00 to 13:30, 16:00 to 22.00 Saturday: 09:00 to 16:00 Sunday: 09:00 to 16:30 Total: 52 Hours  63%																		
<b>Minimum Pool Size</b>	20 metres of 160 m <sup>2</sup> Lidos excluded																		

## **Appendix 2 – Main assumptions of Facility Planning Model**

The following points summarise the main assumptions used within the Facility Planning Model.

The assumptions have been tested against the 1997 survey entitled, 'The Use and Management of Sports Halls and Swimming Pools in England', and against the Benchmarking Survey returns and the GHS Time Use Survey.

### **Demand**

There are no cultural or socio-economic differences which will result in significantly different patterns of participation.

There is a balanced programme of sports opportunities at the facilities including sports development objectives, which enables equity of use by everyone.

Sport is affordable. In those commercial facilities which may not be affordable, a weighting will be applied to limit allocation of demand to these facilities

All visits start from home.

Demand is elastic within the peak period for the relevant facility type i.e. If someone cannot get access for their sport at a particular time, they will go at a different time.

### **Supply**

There is reasonable and equitable access to all facilities.

All facilities are equally attractive to users i.e. there is no difference in the quality of facilities, unless a weighting factor has been applied to reflect the facilities' attractiveness.

The programme of activities during the peak period is close to the 'national standard'.

The normal peak period is 52 hours per week for swimming pools, these hours are set out in Appendix 1

The study will specify a de minimis dimension for swimming pools. Where none of the pools on site are equal to or greater than the de minimis the pool will not be included.

If there is one pool on a pool site which is included, any additional smaller learner / teaching pool will also be included.

## Catchment

The catchment area for each facility extends to 30 minutes, for 3 modes of travel - by car, by public transport and on foot. However, within this there is a 'distance decay function', based on the concept that the willingness to travel declines with distance.

Where facility catchment areas overlap, i.e. visitors have a choice between facilities; they are always attracted to the least busy facility.

All facilities of the same type are equally attractive to visitors. However, if attractiveness weightings are applied, the visits allocated by the Model to down-weighted facilities will be proportionately fewer.

All facilities are equally accessible in all directions throughout the catchment area, given an adequate road network.

Visits can be 'satisfied' if there is one or more facility within the defined travel time **and** there is sufficient capacity available at the facility, i.e. it is not 'full'.

If there are no facilities within the defined travel time, then the demand is 'unmet'.

The catchment area is unaffected by local authority boundaries.