Active Communities Malvern Hills District:
A Vision for the Future

Malvern Hills District
Sport and Leisure Strategy 2014 - 2024

Chapter 14:
Tenbury Swimming Pool Need Assessment

Malvern Hills District Council
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EXECUTIVE SUMMARY

The Sport, Leisure & Culture Consultancy (SLC) was appointed by Malvern Hills District Council to undertake a needs assessment of Tenbury Swimming Pool (the pool), which is located on the northern edge of District. The swimming pool in its current state is approaching the end of its life and is likely, subject to detailed condition survey findings due late November 2013, to require significant investment to remain operational. There is still an ongoing concern about its financial sustainability.

A demographic analysis of the local catchment around the pool suggests a relatively elderly resident population with high levels of deprivation. Mobility (access to a private vehicle) is however higher than average for the area. This would be expected given the rural nature of the areas that lies outside Tenbury.

SLC calculates that the actual proportion of usage of the pool by Malvern Hills District residents is 37% with 63% usage from non-residents.

Based on Sport England participation research, there has been a decline in swimming participation across the entire area over the last five years, with participation rates declining most significantly in the District compared with neighbouring authorities. Sport England's market segmentation data suggests that the elderly local population are unlikely to increase their swim activities significantly (even with new facilities), given that physical capability and illness are the main barriers to participation. There is also limited population growth projected across the area, with the highest increase in those aged over 55, thus perpetuating the demographic profile of the catchment around the pool.

The pool serves a local catchment, with 55% of current swim members (based on SLM user data) residing within a 10-minute drive time catchment, 78% within a 15-minute drive time catchment and 91% within a 20-minute drive time catchment. In terms of operations at the pool, the throughput during peak periods has fallen over recent years, suggesting that the total capacity of the existing facility is significantly above what is required by the local community. This gap between capacity and utilisation is likely to grow over the next 10 years, given the trends in core swim activities at the site.

There is limited alternative provision within an expected travel time (20 minutes) of the pool. Residents of the District are not the main users of the pool (only account for 37% of the current user sample) although if the pool was lost this would impact these residents the most, in terms of accessibility to alternative facilities (based on travel times). However if the catchment of the main alternative sites was extended to a 30 minute travel time, all current pool users within the District would be accommodated at alternative sites outside of the District.

Each of these sites is estimated to have (based on Sport England facility planning model (FPM) estimates) a significant amount of spare capacity at peak times to accommodate the transfer of users (and mitigate a decline in participation if the pool was to close). According to the FPM, the pool is operating at 41% of capacity. Based on actual data it is estimated to be closer to 53% (2013) but predicted to fall to 41% by 2016 (based on throughput trends). All figures are significantly below the industry target of 70% (commercially sustainable wet side facilities, accounting for a comfort factor).

Sport England's FPM suggests that approximate 191 visits per week during peak periods from Malvern Hills District residents would be unmet if the pool was to close. This is a nominal

figure when compared to total met demand across the District (total participation) and if the pool was lost the District would still have a supply of pool provision that is above the national average and which accommodates almost all internal demand.

It is therefore concluded that there is limited reason to justify further investment into the pool by Malvern Hills District Council and that facilitating access for the local population of Tenbury to alternative provision should be prioritised in the longer term.

14.1 TENBURY SWIMMING POOL NEED ASSESSMENT

14.1.1 Background

The Sport, Leisure & Culture Consultancy (SLC) was appointed by Malvern Hills District Council in October 2013 as part of developing its Sport and Leisure Strategy, to undertake a needs assessment of Tenbury Swimming Pool (the pool). The pool is situated to the east of Tenbury Wells, which is located between Leominster (8.4 miles and 17 minutes' drive time) and Kidderminster (20.2 miles and 38 minutes' drive time). The pool current serves the rural population within the north of Malvern District (the District) as well as residents from other neighbouring areas, primarily northeast Herefordshire and the southern parts of South Shropshire.

This needs assessment considers the requirement for swimming pool provision at the existing Tenbury site. If this wet side provision ceased, this report considers:

- The risks with regard to accessibility and/or availability impacting current or potential pool users, the number of users and residents effected and location of these users and residents
- Impact on other pool provision in the area (and any likely operational implication for specific sites) due to the displacement of Tenbury Pool users.

In undertaking this assessment, it is important to consider the current context with regard availability and accessibility for residents within the District, the projected demographic changes over the next 10-15 years, including significant localised population growth, and the latest best practice (based on Sport England guidelines) in facility supply and demand planning.

14.1.2 Our Terms of Reference

SLC has been appointed to produce an independent report, which will set out the need for long-term swimming provision at Tenbury Swimming Pool, and identify the impact on the local resident community and surrounding existing pool provision if the pool at Tenbury ceased to operate and close.

The brief envisaged:

- Assessment of demand for the Tenbury Swimming Pool
- Assessment of the options for Tenbury Swimming Pool users to access alternative swimming provision in the area
- Availability of alternative swimming provision (supply) in the area to mitigate the impact of the loss of the pool.

Key outputs required include:

- Independent assessment of the current market that the Tenbury Swimming Pool serves
- Opportunity for transferring demand to alternative provision – which sites would be able to mitigate the impact of the loss of the facility
- Align analysis with Sport England's bespoke facility planning model report

- Utilise the latest best practice in terms of sourcing, analysing and reporting of facility planning information with respect to public sector swimming provision within the UK.

14.1.3 The Structure of our Report

We have structured the remaining sections of this document to meet the requirements of your brief while ensuring a concise and accessible report setting out our core findings.

Table 77: Report Structure

Section		Key Content or Output
2	Project Context	Background to project
3	Demand: current usage	Analysis of current wet side participation
4	Demand: profiling and projections	Assessment of market segmentation (current and potential users) and impact on demographic changes
5	Supply: accessibility	Assessment of alternative provision and a gap analysis based on travel time catchments
6	Supply: availability	Analysis of capacity and occupancy of alterative provision and impact of displacement
7	Facility planning model analysis	Review of Sport England's FPM run for pool provision in the area
8	Conclusions and recommendations	Overview of the impact and implications of the potential loss of Tenbury Swimming Pool

14.2 PROJECT CONTEXT

14.2.1 Introduction

Tenbury Swimming Pool (the pool) is a 250m^2 leisure pool that was built in 1971 and last refurbished in 2007. The pool is currently operated by Sport and Leisure Management (SLM) under their 'everyone ACTIVE' brand on behalf of Tenbury and District Swimming Pool Guild with financial support from Malvern Hills District Council. Currently ownership still sits with the Guild and will only transfer to the Tenbury and District Swimming Pool Company following adoption of the new lease.

The swimming pool in its current state is approaching the end of its life and is likely, subject to detailed condition survey findings due late November 2013 require significant investment to remain operational. There is still an ongoing concern about its financial sustainability.

The pool is the only current public swimming provision in the northern half of the District. Given the rural nature of this part of the District, the pool has served primarily a local population (analysed later in this report). The operational and subsequently financial performance of the site has declined over previous years and therefore it is important to identify if a change of facility mix is required to best meet the needs of local residents in the long-term.

14.2.2 Demographic overview

Table 2 provides a demographic break down of the catchments around the pool. The information is based on the latest Office of National Statistics (ONS) Household Survey (2011).

Table 78: Demographic catchment – Tenbury Swimming Pool

	Catchment size (Tenbury Swimming Pool)					
Demographic Criteria	**2 km**	**10 min drive**	**15 min drive**	**20 min drive**	**Malvern Hills**	**England**
Total population	**6742**	**21058**	**47954**	**73845**	**74631**	**53012456**
Aged 0-14	14.5	15.1	15.2	15.7	15.3	17.7
Aged 15-29	14.1	14.0	14.5	14.8	14.5	20.0
Aged 30-64	46.0	46.2	46.5	46.1	46.0	46.0
Aged 65+	23.0	23.8	24.7	24.4	24.0	16.3
Male	48.5	48.0	48.7	48.8	48.6	49.2
Female	51.5	52.0	51.3	51.2	51.4	50.8
Ethnic minority group	3.8	3.9	4.5	4.7	4.84	20.2
General health						
Good	35.4	34.5	35.8	35.3	35.1	34.2
Fairly good	14.8	14.5	14.6	14.3	14.0	13.1
Not good	2.9	2.8	3.1	3.4	3.9	4.2

	Catchment size (Tenbury Swimming Pool)					
Demographic Criteria	**2 km**	**10 min drive**	**15 min drive**	**20 min drive**	**Malvern Hills**	**England**
Population with a long term illness	8.6	8.6	8.5	8.4	8.6	8.3
Employment						
Economically active	59.9	60.1	61.4	62.7	62.6	69.9
AB. Higher and intermediate managerial/administrative/ professional	45.7	45.8	45.4	45.9	45.9	41.2
C1. Supervisory, clerical, junior managerial/administrative/ professional	16.5	16.5	16.7	16.8	16.7	19.9
C2. Skilled manual workers	19.1	19.5	19.6	19.7	19.5	20.7
D. Semi-skilled and unskilled manual workers	8.4	8.5	8.4	8.7	8.8	7.2
E. On state benefit, unemployed, lowest grade workers	13.9	14.1	13.7	13.8	14	11.1
Mobility						
Own one or more car	32.0	33.5	33.1	33.4	33.8	24.7
Multiple deprivation						
Household is deprived in at least one dimension	31.4	32.5	32.6	32.9	32.9	32.6

Source: ONS (2013)

The table suggests a local population profile around the pool which is relatively elderly with a higher than average reported level of poor health and long-term illnesses. Given the age structure there is a relatively lower level of economic activity around the pool with a high proportion of resident around the site's immediate catchment and across the District that are on state benefits.

Mobility (car ownership) is relatively high compared with the national average, which would be expected given the rural nature of the area. Levels of multiple deprivation within the immediate catchment of the pool are below the District and national averages. These are assessed in greater detail within the following section.

Figure 28 illustrates that the lower super output area (LSOA) within which Tenbury Pool is located is ranked in the mid range for multiple deprivation (17,814 out of 32,482 nationally). The site is also surrounded by LSOAs that are less deprived.

Figure28: Index of Multiple Deprivation (Tenbury Swimming Pool)

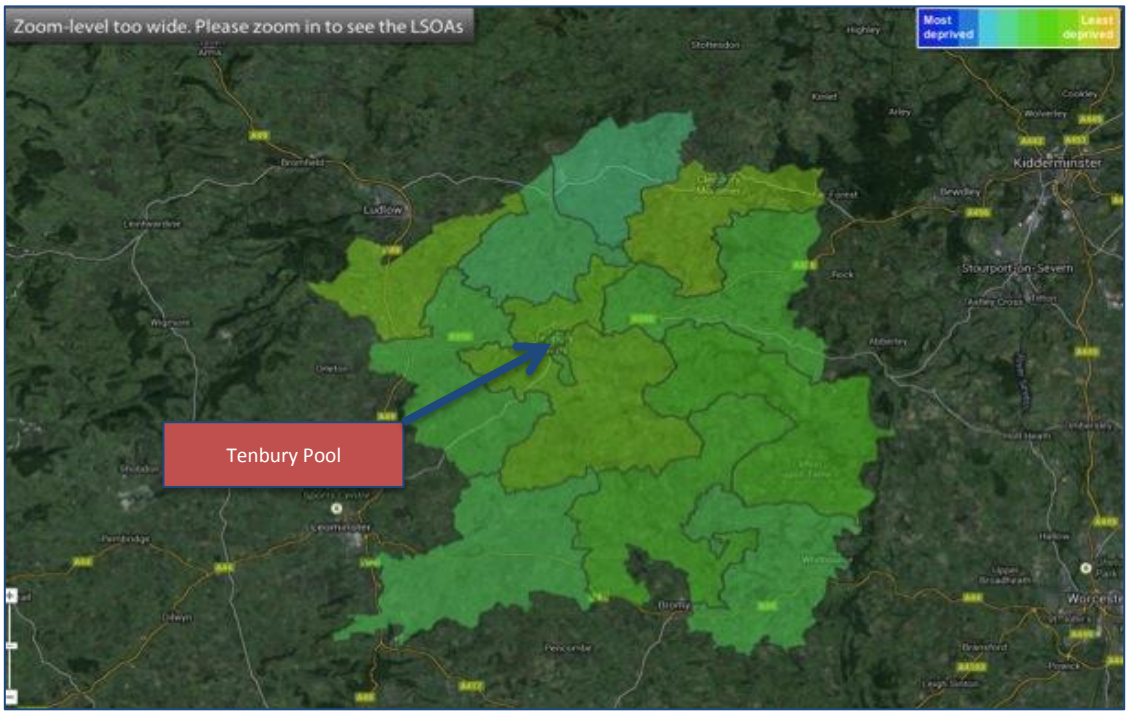


Figure 29 illustrates the barriers to housing and other services. While the residents within the immediate Tenbury LSOA are well served (ranked 28,399), those other LSOAs around the pool are significantly deprived of all core services (neighbouring LSOA to the south is ranked 976 and to the west 105 out of the 32,482 LSOAs nationwide).

Figure 29: Barriers to housing and services (Tenbury Swimming Pool)

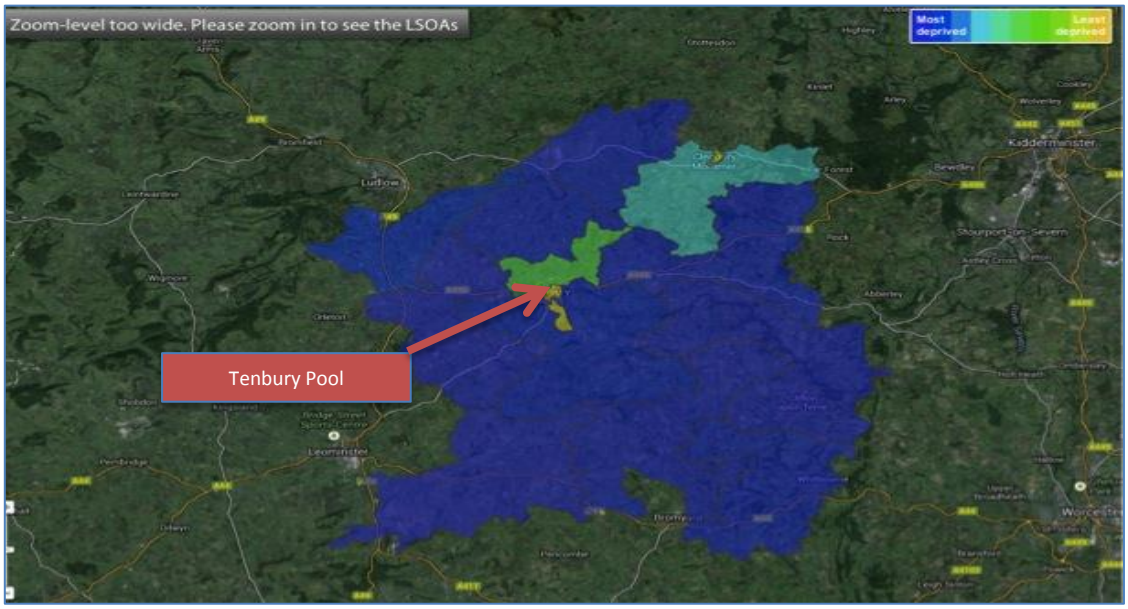
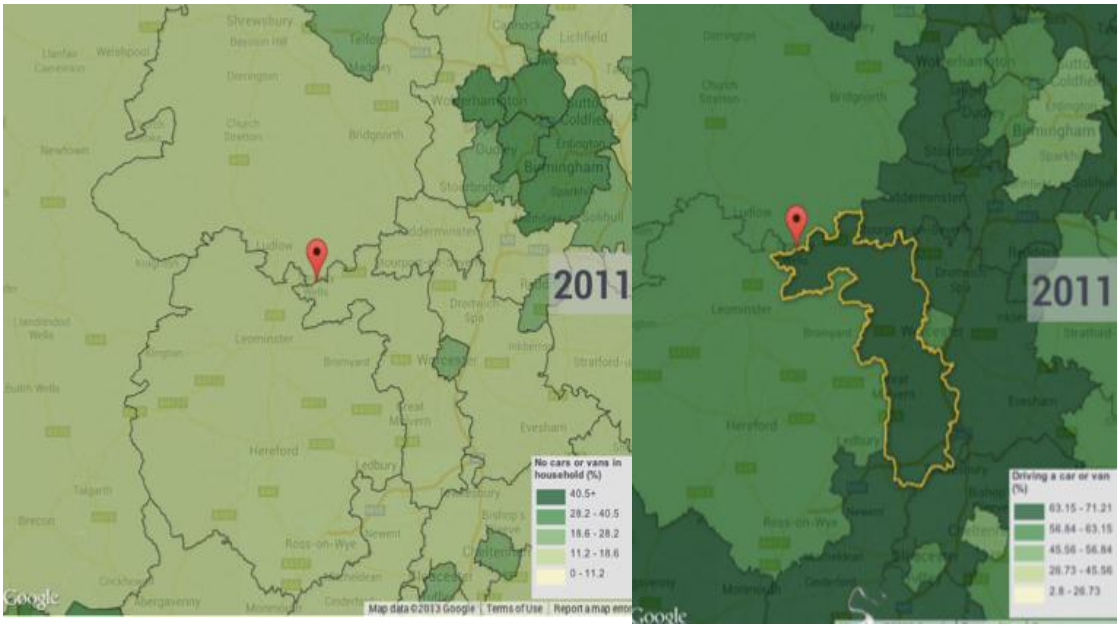


Figure 30 illustrates that there is a significantly high proportion of all residents around the pool that own a car and also commute by vehicle to work. This would suggest that a higher than average number of resident have the capability of travelling a 15-30 minutes' drive time to an alternative swimming pool facility. Modes for travelling to work are broken down as follows:

- Driving their own vehicle (63%)
- Work from home (19%)
- By foot (7%)
- Passenger in a vehicle (4%)
- By train (2%)
- Bicycle (2%)
- Bus (1%).

Figure 30: Car ownership / Commuting to work by car (Tenbury Swimming Pool)



14.3 DEMAND: CURRENT USAGE

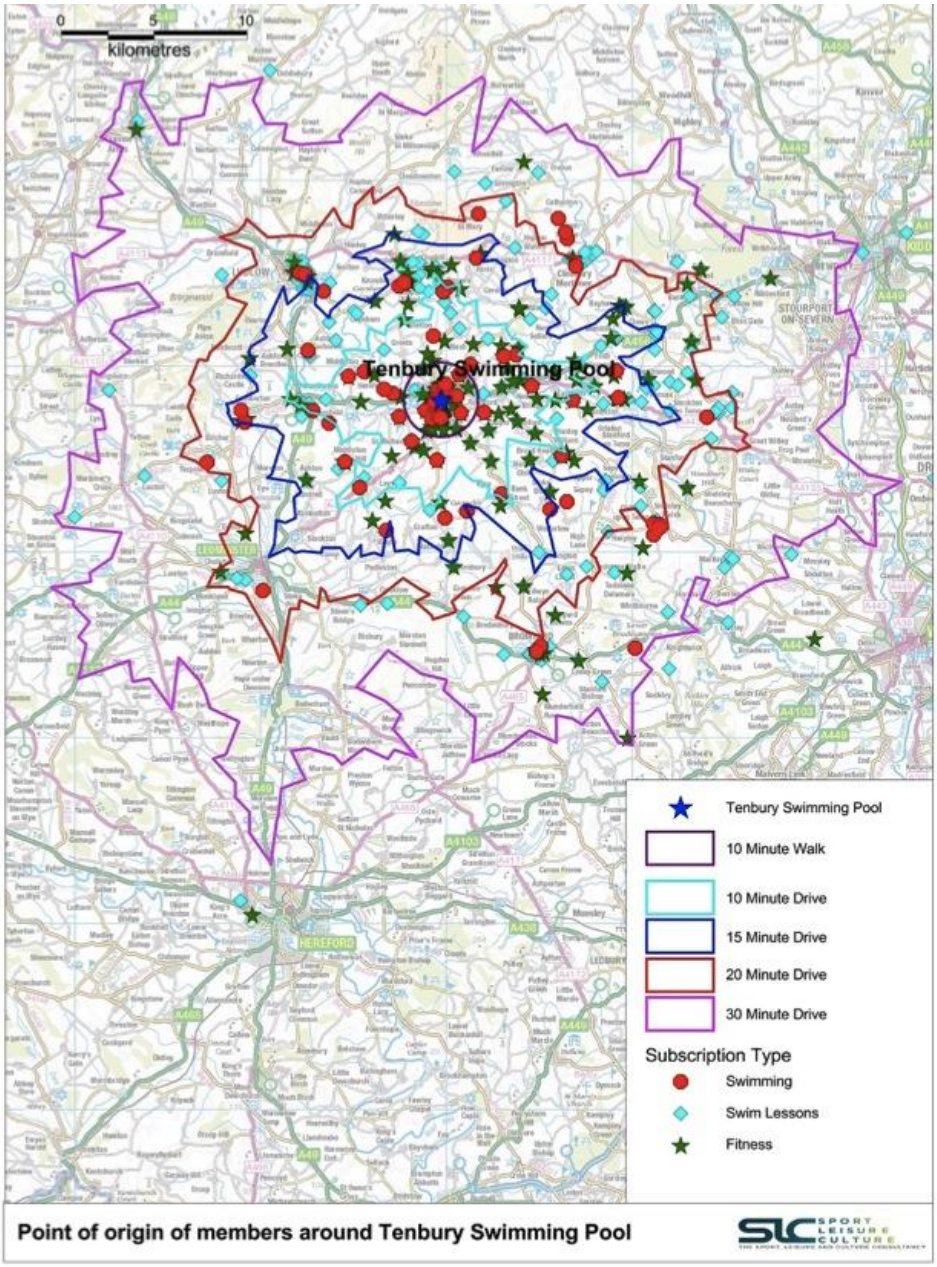
14.3.1 Introduction

This section outlines the current use of the pool and the extent to which existing demand is justifying the amount of water space provision at the site.

14.3.2 Member location

Figure 31 illustrates the points of origin of current users of the pool, broken down by 'swim' only members, swim classes and fitness members (who have access to the pool and it was suggested by the centre management that two thirds of this user group are regular pool users).

Figure 31: Swimming pool users – points of origin



The map suggests that a significant number of current pool users are located within the 2km (10 minute walk time) and 10-minute drive time catchments. Any clustering outside of Tenbury is mainly along the A456 in the smaller villages towards Kidderminster. The existing pool is attracting very few users from any of the major towns around Malvern Hills and is primarily serving the population of Tenbury and local rural settlements.

Table 79 confirms that 55% of current pool users are within a 10-minute drive time and 78% within a 15-minute drive time. 91% of current pool users are within a 20-minute drive time. All major towns are outside of the 30-minute drive time, which only accounts for 1.6% of current users. When considering swimmers only (excluding fitness members), 73% of all current users are within a 15-minute drive time and 51% within a 10-minute drive time.

Table 79: Tenbury Pool users – points of origin

Travel time catchment	Swim lessons membership	Swim membership	Fitness membership	Total	Percentage
2km	120	43	119	**282**	30.0%
2km-10min drive time	99	20	113	**232**	24.7%
10-15min drive time	103	16	97	**216**	23.0%
15-20min drive time	71	11	43	**125**	13.3%
20-30min drive time	49	7	14	**70**	7.4%
Over 30 min drive time	8	1	6	**15**	1.6%
Total	**450**	**98**	**392**	**940**	

Source: SLM, Tenbury Swimming Pool user postcode data (2013)

14.3.3 Pool usage trends

Financial and operational data has been provided by SLM. This has been analysed in the following graphs. The projected utilisation of the pool by Sport England within their Facility Planning Model (FPM), which is provided in detail in Section 7 of Annex b, is 41%, which equates to 767 visits per week during a peak period. This estimate is based on a number of variables, including the local demographic profile of the area. This theoretical usage is compared with the actual operational figures within this section.

Figure 32 outlines the trend in income by activity over the last 10 years (figures have been sourced from SLM's profit loss accounts). The trends suggest the following:

- Significant downward income trend in 'fun swims' which subsequently levelled out from 2009
- Annual membership (which includes all facilities) has continued to increase each year
- General swimming has continued to decline each year
- Annual swim membership income has remained relative static
- Fitness swim income has fallen significantly since a high in 2007.

Figure 32: Income (swimming pool minor revenue streams)

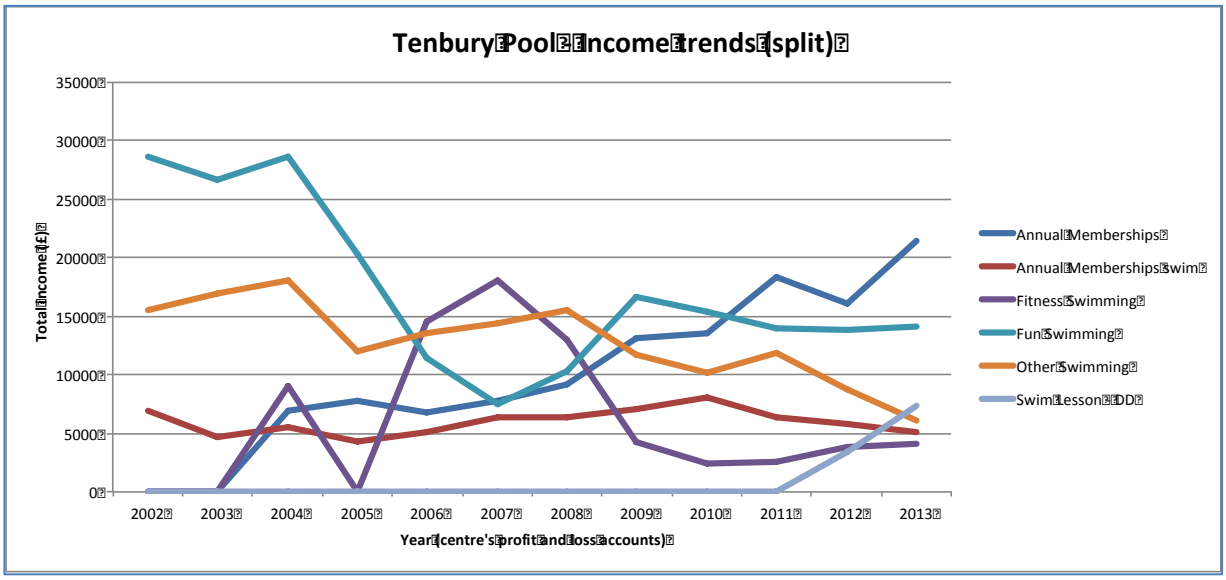


Figure 33 illustrates the major revenue streams generated by the swimming pool. The graph suggests that income from swim lessons has fallen since 2009. The growth in total income cannot be purely based on a growth in direct debit sales, and appears to have begun to increase again gradually since an initial decline in 2009.

Figure 33: Income (swimming pool major/total revenue streams)

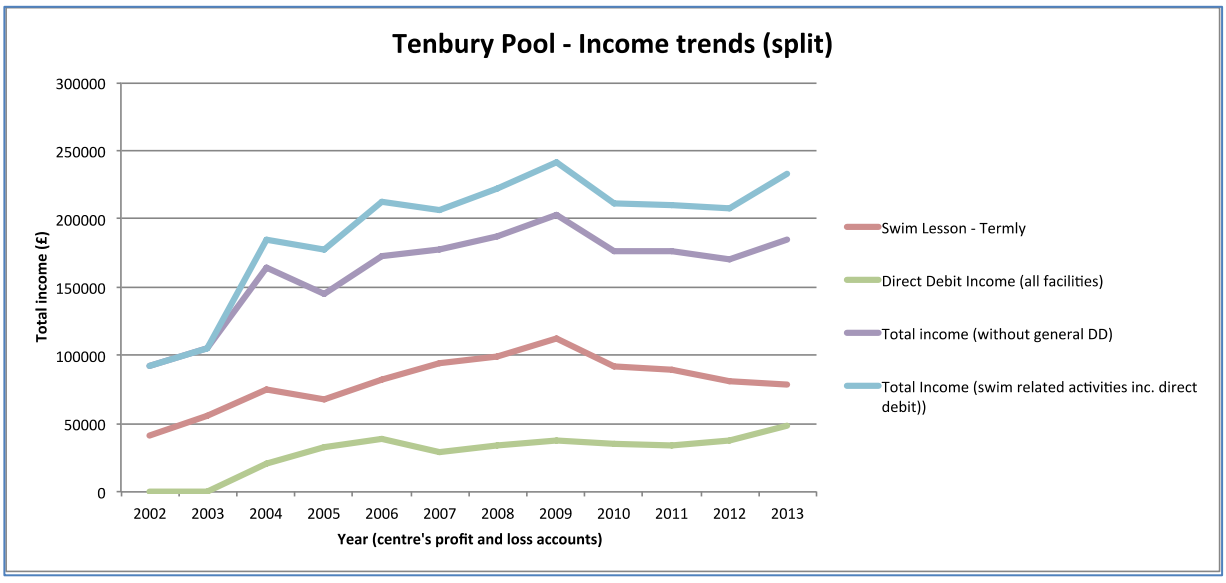


Figure 34 illustrates throughput at the site. The graph suggests the following:

- Seasonal usage of the pool, primarily around school holidays
- 'Fun swim' has gradually declined with seasonal peaks also falling
- Reduction in fitness swims, particularly this year since July 2013
- Monitored attendance (percentage of general usage of the site attributed to swimming by SLM) has also fallen since a peak in February 2012
- Wider contextual factors including flooding in the area and bridge closures (access and availability to the site).

Figure 34: Throughput by activity

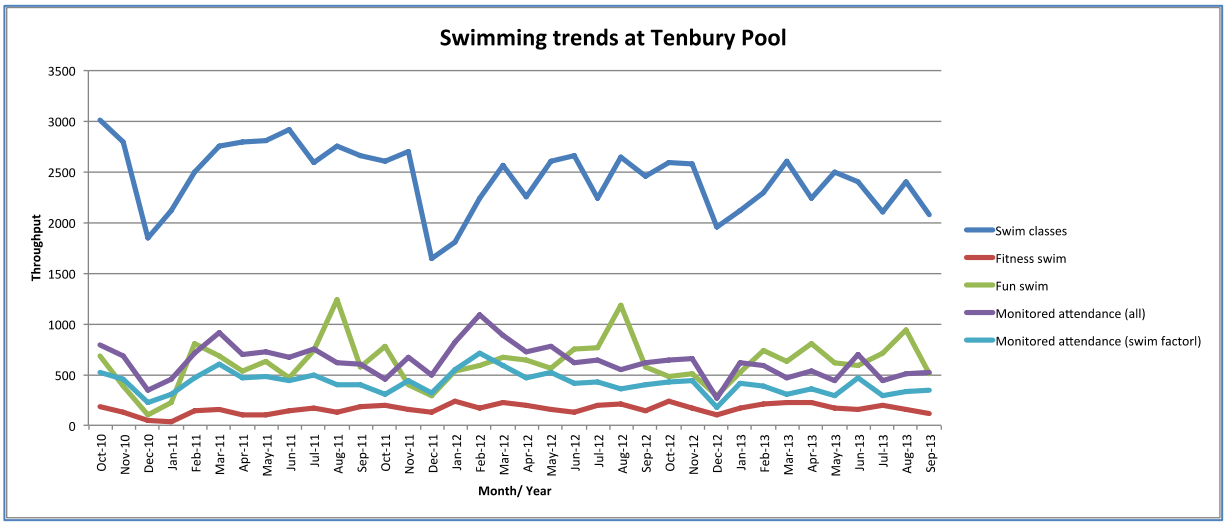
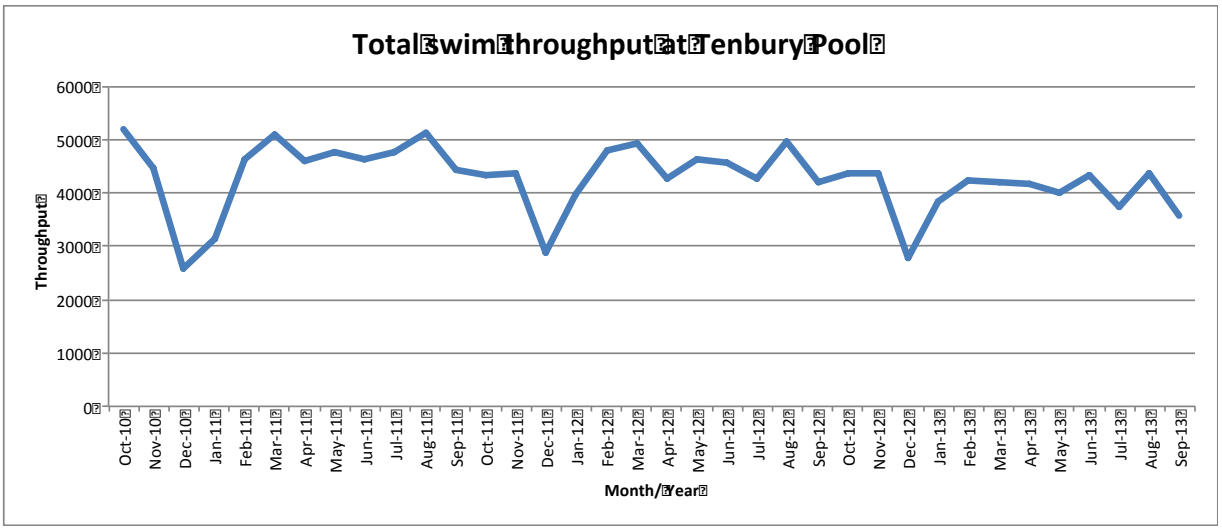


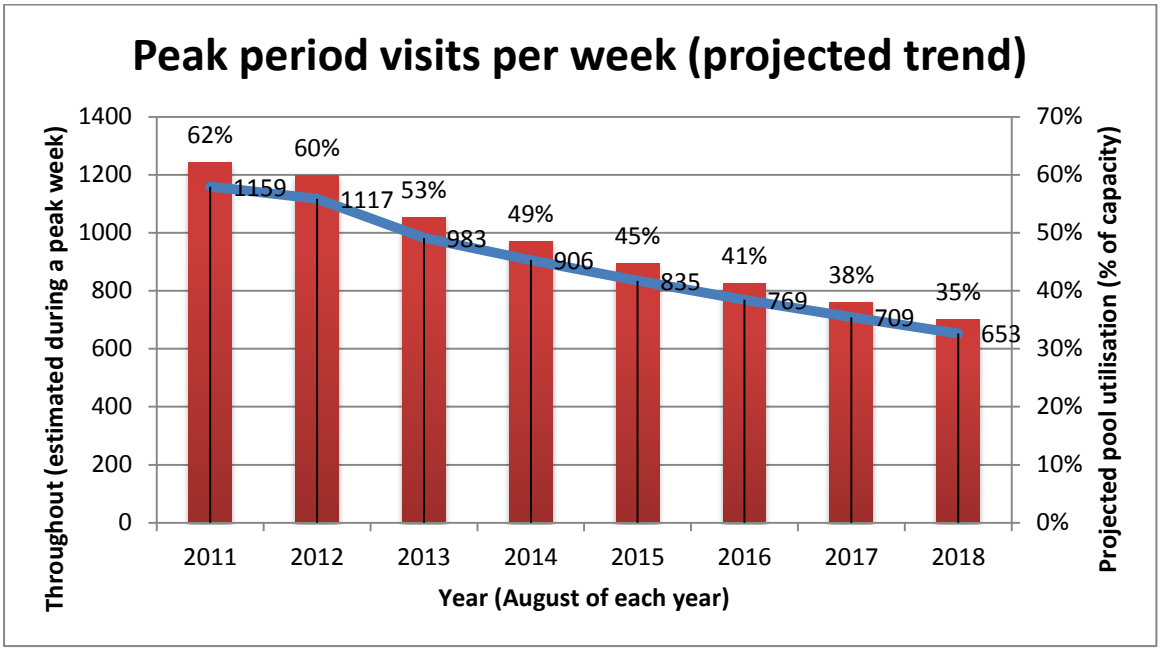
Figure 35 illustrates the overall decline in usage of the pool since a peak in August 2011. Given the relatively low throughput in August 2013, compared to this time of year in previous years, the trend suggests that the seasonal low (December 2013) is likely to be below all previous years and total throughput across the year at an all-time low.

Figure 35: Overall swim throughput trend



Sport England's FPM model suggested a pool utilisation rate of 41% per week during peak periods for the pool based on a capacity of 1,865 visits per week. The actual throughput for August (which has been the peak period every year) has been analysed in Figure 36. This illustrates that current utilisation (2013) is projected to be 53% although is projected to fall to Sport England's estimate by 2016. This is based on the average decline of 7.8% each year during the peak period (August).

Figure 36: Peak period utilisation



14.3.4 Summary

In general the pool serves predominantly a local community around Tenbury. Overall the income from the pool and related activities has increased slightly over the last 10 years however total swim throughput has fallen gradually. More significantly the throughput during peak periods has fallen over recent years, suggesting that the total capacity of the existing facility is significantly above what is required by the local community. This gap between capacity and utilisation is likely to grow over the next 10 years, given the trends in swim activities at the site.

14.4 DEMAND: PROFILING AND PROJECTIONS

14.4.1 Introduction

This section considers the type of demand for pool facilities at the Tenbury site and across the District. Projections are used to estimate how this demand is likely to change over the next 10 years.

14.4.2 Swimming participation

The following table is based on Sport England's annual participation survey, Active People. Table 80 illustrates a significant decline in those participating at least once every four weeks in any form of swimming. The decline is most significant in the District.

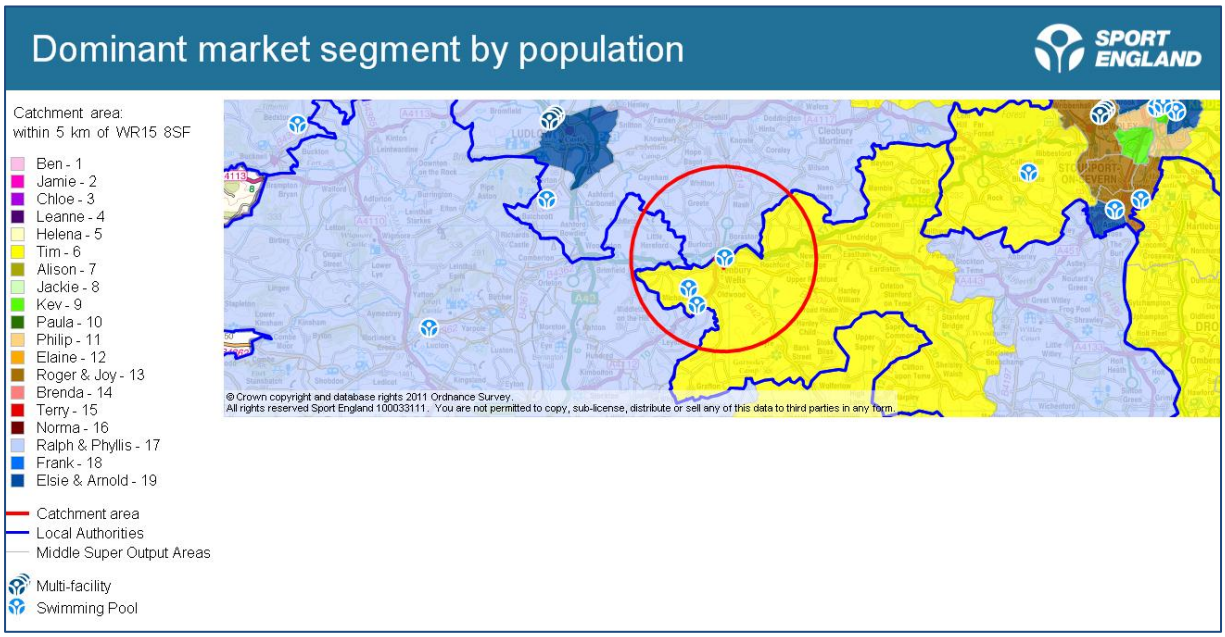
Table 80: Swimming participation trend (Sport England)

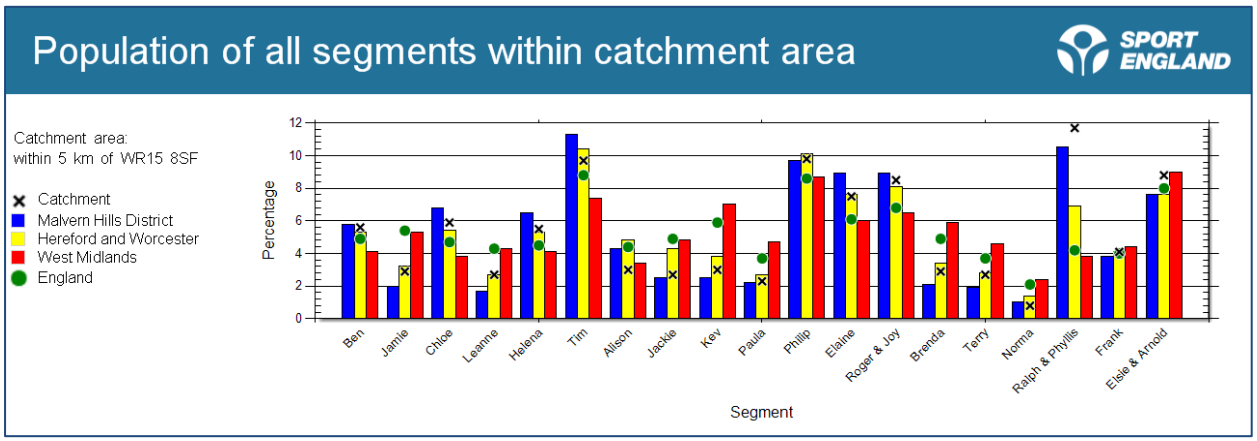
Area	APS1 (2006)	APS2 (2008)	APS3 (2009)	APS4 (2010)	APS5 (2011)	APS6 (2012)	APS7 (2013)	2006-13 variance
England	13.80%	13.40%	13.20%	12.90%	11.60%	11.60%	11.40%	-2.40%
West Midlands	12.80%	12.60%	12.50%	11.70%	10.00%	10.50%	10.10%	-2.70%
Malvern Hills	**14.20%**	**11.30%**	**10.40%**	**14.70%**	**11.70%**	**11.50%**	**10.70%**	**-3.50%**
Herefordshire (County of)	14.70%	9.27%	14.80%	12.10%	10.30%	9.73%	11.30%	-3.40%
Shropshire	14.30%	13.50%	13.40%	14.60%	12.30%	8.82%	11.90%	-2.40%
Wyre Forest	14.00%	17.00%	12.00%	14.00%	11.40%	11.90%	11.90%	-2.10%
Worcestershire	14.40%	13.30%	12.10%	13.10%	12.00%	13.30%	11.70%	-2.70%

14.4.3 Market segmentation

Sport England has developed market segments for sports participants. This categorises the English population into 19 segments, defined by common demographic characteristic profiles based on extensive research into the preferences and propensity of individual types to participate in specific sports and activities. The profile of the local catchment around the pool is shown in Figure 37.

Figure 37: Market segmentation (Tenbury Swimming Pool)





The population segments show that the profile name 'Ralph and Phyliss' (categorised as 'comfortable retired couple') is significantly prominent within the immediate catchment of the pool. Table 81 uses actual drive time catchments (accounts for local road speeds and congestion) to provide an actual count of segments per catchment. The characteristics of the most prominent segments are detailed in table 82.

Table 81: Market segmentation (swimming around Tenbury Pool) - segment totals by catchment

	Drive time catchment					
Segment / Drive Time (min)	**0-2.5**	**2.5-5**	**5-10**	**10-15**	**15-20**	**Total**
Dominant Segment	**Elsie & Arnold**	**Ralph & Phyllis**	**Ralph & Phyllis**	**Ralph & Phyllis**	**Tim**	**Ralph & Phyllis**
Ben	168	47	238	531	1465	2449
Jamie	136	0	15	97	875	1123
Chloe	168	44	288	615	1511	2626
Leanne	129	0	10	79	803	1021
Helena	159	41	281	506	1506	2493

	Drive time catchment					
Segment / Drive Time (min)	**0-2.5**	**2.5-5**	**5-10**	**10-15**	**15-20**	**Total**
Tim	251	75	495	945	2766	**4,532**
Alison	86	24	160	343	1101	1714
Jackie	119	1	40	170	1144	1474
Kev	145	0	21	125	1093	1384
Paula	113	0	17	80	755	965
Philip	298	62	423	816	2644	4243
Elaine	210	64	327	774	2127	3502
Roger & Joy	325	10	303	705	2529	3872
Brenda	138	0	35	133	978	1284
Terry	131	0	32	98	883	1144
Norma	39	0	13	44	459	555
Ralph & Phyllis	288	117	603	1185	2453	**4,646**
Frank	194	0	53	266	1386	1899
Elsie & Arnold	415	1	109	496	2564	3585
Total	**3512**	**486**	**3463**	**8008**	**29042**	**44511**

Table 82: Market segmentation (swimming around Tenbury Pool) - dominant segments

Segment	Characteristics	Age Band (Socio-Economic)	Levels of Physical Activity per Week	Favoured Sports and Activities
Ralph & Phyllis (Comfortable Retired Couple)	Retired couples, enjoying active and comfortable lifestyles Married or single, possibly with grown-up children; retired, with a comfortable pension.	66+ (AB)	0 x 30 mins per week: 71% 1 x 30 mins per week: 28% 2 x 30 mins per week: 15% 3 x 30mins per week: 9%	Ralph and Phyllis have below average levels of sports participation and their main barrier (76%) is 'health injury or disability'. Ralph and Phyllis's top sports are swimming (25%), Keep fit /gym (7%), golf (7%) and cycling (6%).
Tim (Settling down males)	Sporty male professionals, buying a house and settling down with a partner Married or single professional, possibly with children	26 – 45 (ABC1)	2 x 30 mins per week: 62% 3 x 30 mins per week: 38%	Tim is an active type that takes part in sport on a regular basis, even so, 66% of this segment would like to do more sport. Tim's top sports are cycling (21%), keep fit/gym (20%), swimming (15%), football (15%) and athletics (13%)

Segment	Characteristics	Age Band (Socio-Economic)	Levels of Physical Activity per Week	Favoured Sports and Activities
Elsie and Arnold (Retirement home singles)	Widowed and/or retired, predominantly female living in sheltered accommodation	Aged 66+	82% have done no sport or physical activity in the last four weeks. 3 x30mins per week: 5%	Much less active than the adult population mainly due to injury or illness. 10% do keep fit/gym, 7% swimming and 3% bowls

Source: Sport England Market Segmentation (2013)

These tables suggest that the local population will be relative elderly and subsequently sedentary. While swimming is a popular activity their frequency of activity is relatively low and is not likely to increase significantly with a change in facility mix, as the main barriers are health and physical capabilities.

Table 83 identifies the number of swimmers that should be swimming (based on the demographic profile of the resident population) and have indicated they would like to swim more (barriers include cost, time, accessibility and availability). Given that the pool currently has 970 members that swim (or have access to swimming, in the case of the general fitness membership), there is still a significant catchment of either casual swimmers or potential new swimmers within the catchment of the pool that are not participating, especially when the pool is the only facility within the 10km catchment. Accounting for this, and the fact there is a high car ownership (suggesting accessibility should not be a barrier), it is not likely that the facility in its current state is likely to attract a significant proportion of this latent demand.

Table 83: Market segmentation (swimming around Tenbury Pool)

Catchment area	Currently swim	Would like to swim (or swim more)*	Latent demand percentage
2km from Tenbury Pool	476	464	97.5%
5km from Tenbury Pool	677	635	93.8%
10km from Tenbury Pool	1,944	1,744	89.7%
Malvern Hills District	8,234	7,627	92.6%
Shropshire*	33,195	31,474	94.8%
Wyre Forest	11,079	10,952	98.9%
County of Herefordshire	20,477	19,348	94.5%

* Sport England only provide total figures for Shropshire.

14.4.4 Future need (population projections)

The following section considers the population and demographic changes projected for the District and the neighbouring local authorities. The projections are then used to inform the likely change in swimming demand. *It should be noted that Malvern Hills District Council are unable to provide official population projection beyond those supplied by the ONS (2011). This is due to the Local Plan and related local housing allocation plans being revised in the light of the Planning Inspector. Official local projections (ward and LSOA level) should be available from March 2014.*

Figure 38 illustrates the population change within the District by age group between 2013 and 2021 (2011 sub-national ONS projections do not currently project further forward than 2021 at this stage). The figure suggests a significant increase in those aged 55 and over. This will reinforce the existing market segmentation profile of the area. The implications will mean that there is unlikely to be significantly new demand for swimming provision in the next 10 years.

Figure 38: Population projections by age

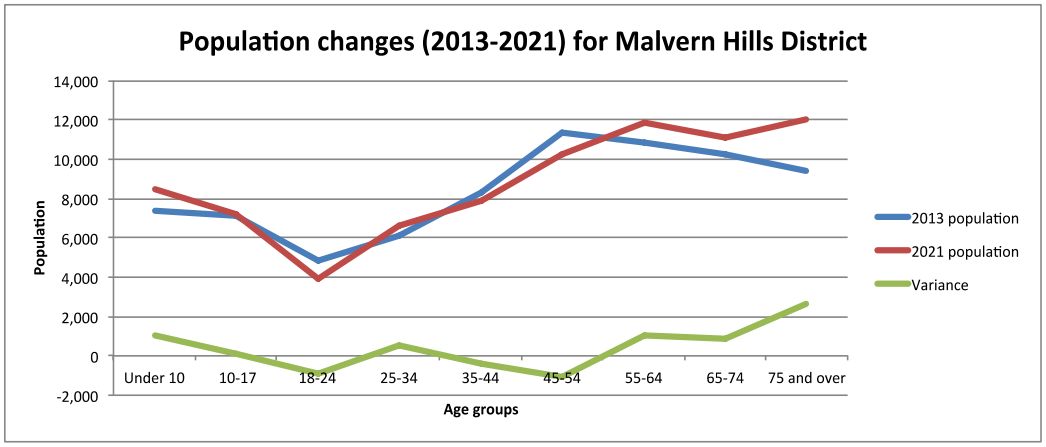
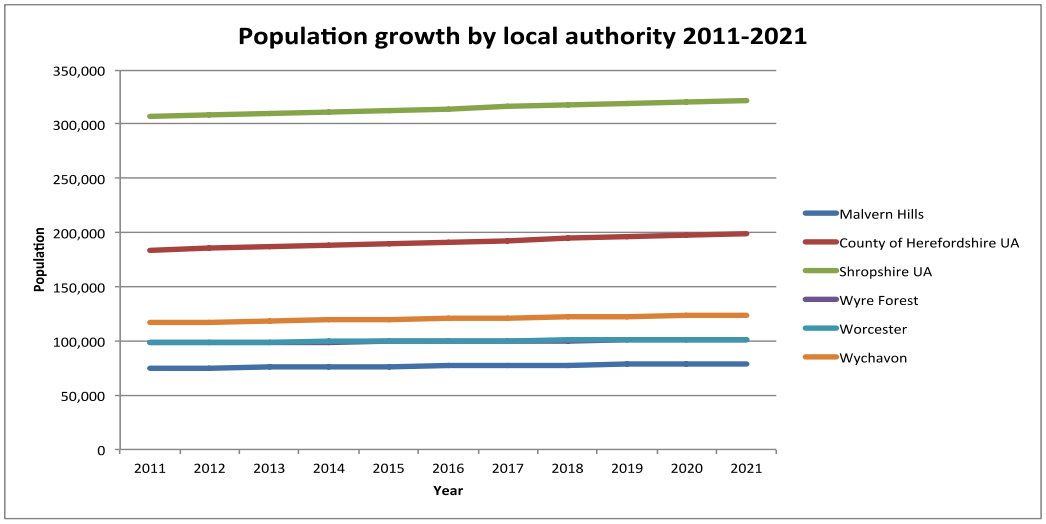


Figure 39 illustrates the overall population growth in the District and across neighbouring authorities where existing users of the pool reside.

Figure 39: Population projections by local authority



suggests a population growth across all authorities in the area. This growth has been analysed against the points of origin of current registered swim members at the pool. Table 84 illustrates how at a high level the current number of registered members is expected to increase by approximately 4.8% between now and 2021. This is purely based on population changes and does not account for the quality or quantity of supply in the area (which is reviewed in the following section).

Table 84: Population growth and swim projections

Local authority	Population growth	Number of swimmers (2013)	Projected swimmers (2021)
Malvern Hills	105.1%	349	366.8
County of Herefordshire UA	106.6%	173	184.4
Shropshire UA	104.0%	339	352.6
Wyre Forest	102.9%	75	77.2
Worcester	102.2%	2	2.0
Wychavon	104.7%	2	2.1
Total		**940**	**985.1**

14.4.5 Summary

In summary the swimming participation rate has declined across all areas, with the District most significantly impacted when compared with neighbouring authorities, the regional and national averages.

In terms of the demographic profile of the area, this is elderly with limited opportunities to grow swimming participation. Population projections suggest the age profile will remain relatively similar over the next 10 years with a possible slight increase in demand due to a rising total population (although this possible increase is likely to be mitigated by any decline in the pool facility quality over this period if no investment is made).

14.5 SUPPLY: ACCESSIBILITY

14.5.1 Introduction

This section considers the existing supply of swimming provision around the pool. The section considers accessibility (travel times) as well as availability (cost and capacity) of alternative provision. The gap analysis reviews alternative provision and whether this is capable and suitable of accommodating any transfer in demand if the pool was to close, or capacity was reduced.

14.5.2 Competition audit

Figure 40 illustrates the supply of alterative provision (by amount of water space at each site) across the region around the pool. The map suggests that there is no significant provision between the pool and Kidderminster to the east and north of the pool towards Bridgnorth. This aligns with the points of origin of the majority of current users who do not reside in Tenbury.

Figure 40: Pool supply (overview)

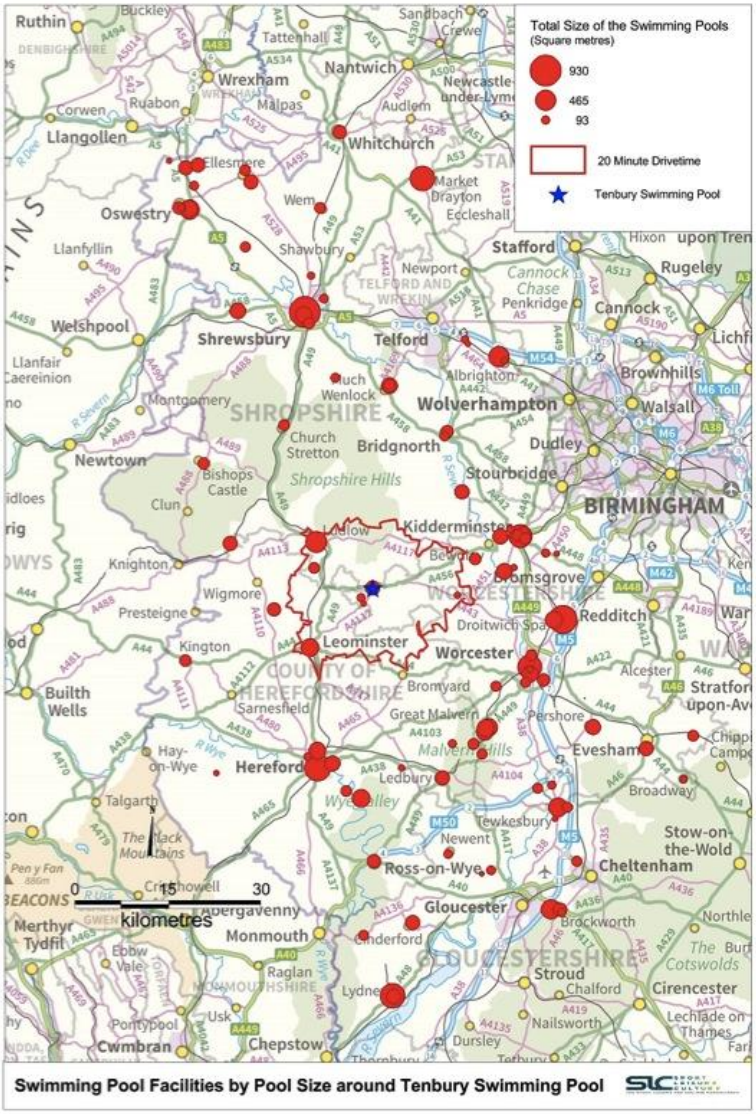


Figure 41 provides a more detailed view of the travel time catchments around the pool. The map suggests that there is no other pool provision of significant size within a 15-minute drive time of the pool. The closest alternative provision that is local authority owned and available on a pay and play basis is Teme Ludlow and Leominster Leisure Centre (both within a 20-minute drive time), and Stourport Sports Centre (within a 30-minute drive time).

Figure 41: Pool supply (Tenbury Swimming Pool catchment)

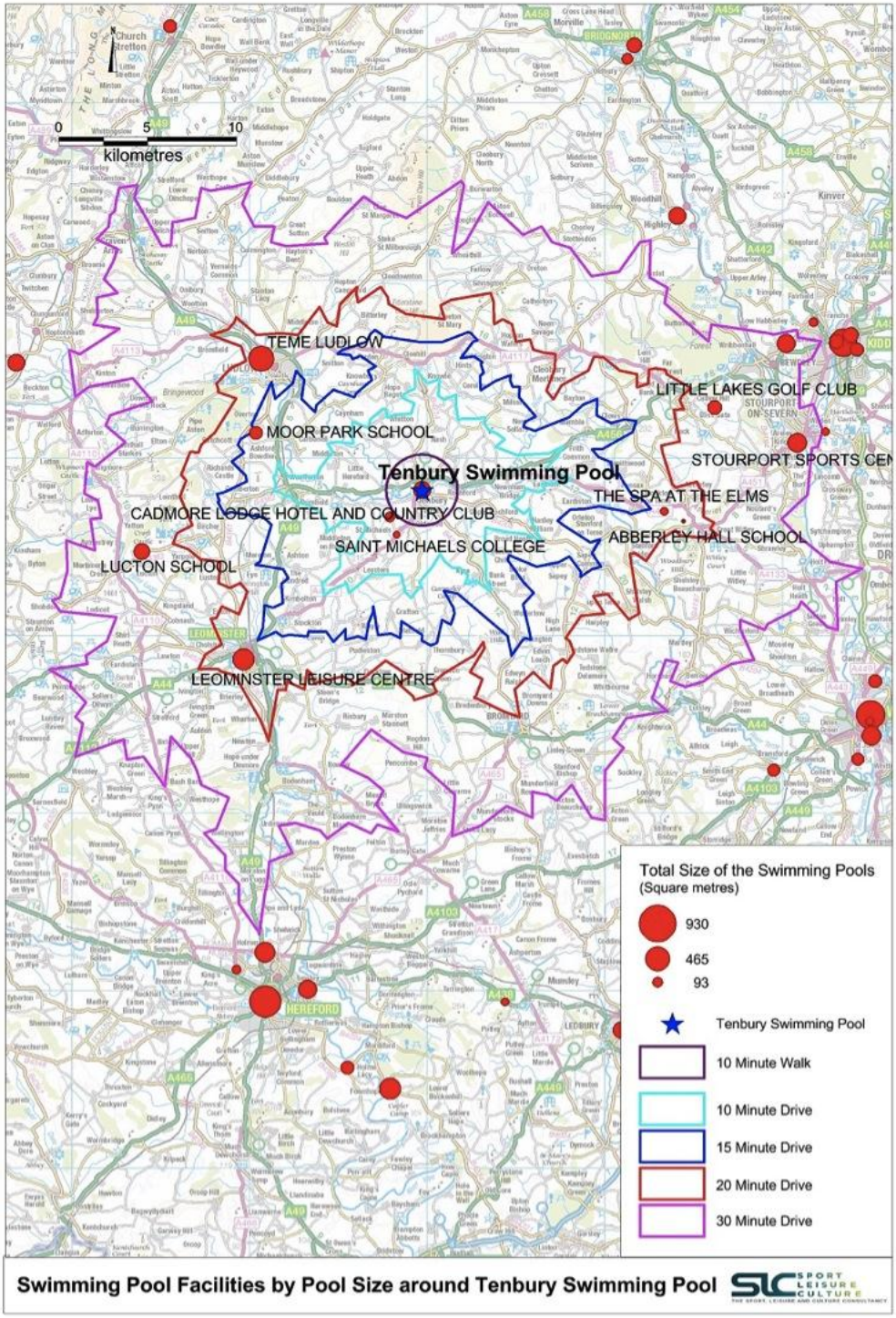


Table 85 provides details of alternative swimming provision around the pool, with pool size, costs, access type and the likely quality of the facility (year built/refurbished). The table suggests that the closest sites to the pool which offer a similar level of availability are:

- Teme Ludlow
- Leominster Leisure Centre
- Stourport Leisure Centre
- Hereford Leisure Pool
- Worcester Swimming Pool and Fitness
- Wyre Forest Glade Leisure Centre.

The realistic accessibility of the closest of these sites is assessed in the remainder of this section (in terms of travel time for current users of the pool to these alternative sites).

Table 85: Competition audit – 10 minute drive time from Tenbury Pool

Facility	Total pool size (m2)	Adult pay and play (peak)	Swim membership / general membership (adult/month)	Access type	Year built/ refurbished
Tenbury Swimming Pool	***250***	***£3.00***	***£20.00/ £20.00***	***Pay and play***	***1971/ 2007***
10 minute drive time catchment					
Cadmore Lodge Hotel and Country Club	96	£15.75	N/A	Registered members	1995/ 2004
Saint Michaels College (lido)	50	N/A	N/A	Private	1960/ 2007
10-15 minute drive time catchment					
Moor Park School	166	N/A	N/A	Private	1978
15-20 minute drive time catchment					
Teme Ludlow	477	£3.60	£31.00	Pay and play	1997
The Spa at the Elms	66	N/A	N/A	Registered members	N/A
Abberley Hall School	200	N/A	N/A	Registered members/private	N/A
Leominster Leisure Centre	362	£3.70	£25.00	Pay and play	2006
20-30 minute drive time catchment					
Little Lakes Golf Club (lido)	170	N/A	N/A	Registered members	1973
Stourport Sports Centre	313	£3.75	£23.15/£35.00	Pay and play	1974
Lucton School	220	N/A	N/A	Sports club/ community association	1950/ 2007
Over 30mins (significant alternative sites)					
Hereford Leisure Pool	712	£3.70	£25.00/ £36.00	Pay and play	1976

Facility	Total pool size (m2)	Adult pay and play (peak)	Swim membership / general membership (adult/month)	Access type	Year built/ refurbished
Worcester Swimming Pool and Fitness Centre	602	£3.50	£15.99/ £23.00	Pay and play	1970
Wyre Forest Glade Leisure Centre	573	£3.75	£23.15/ £35.00	Pay and play	1986/ 2006

14.5.3 Gap analysis (travel times)

The gap analysis identifies what the likely impact would be if the pool was lost in terms of accessibility to alternative provision for current users of the Tenbury site. Figure 42 illustrates that a large area to the east of the pool would not be accessible to an alternative site within a 20-minute drive time.

Figure 42: Gap analysis (Tenbury Swimming Pool catchment)

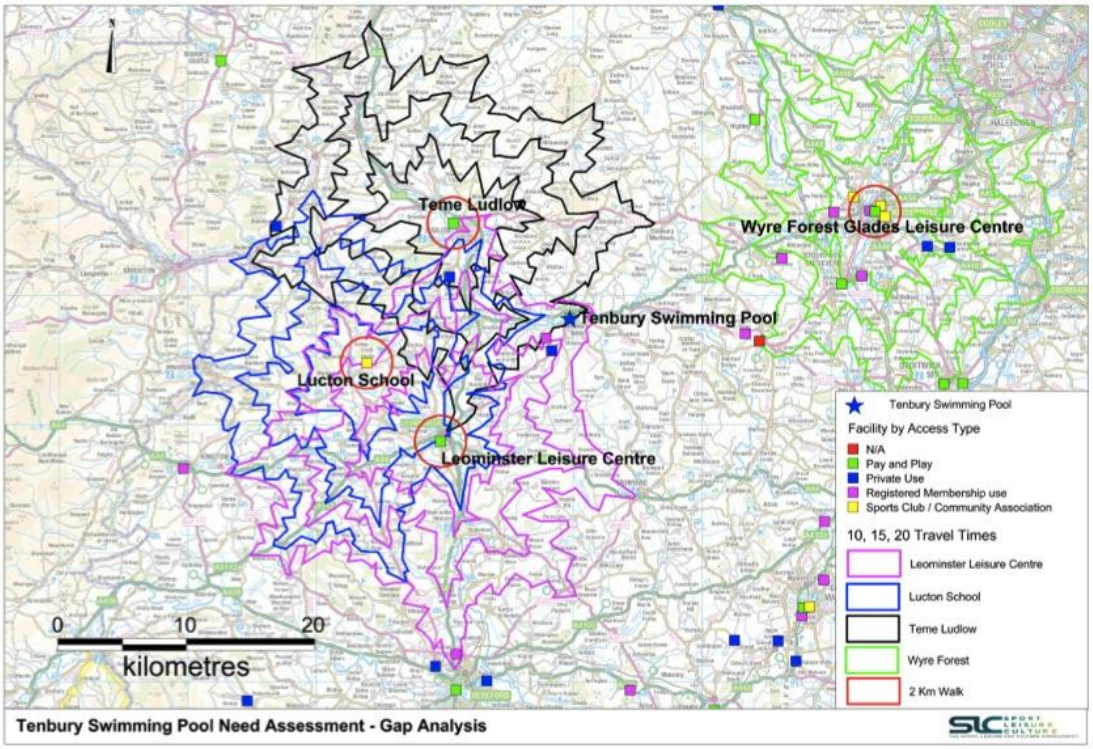


Figure 43 below shows the catchments of alterative similar provision (up to a 30 minute drive time. The tables below show current swimmers at the Tenbury site (total number of records provided by SLM of 940 – this has been used as a sample for assumption purposes) that reside within catchments of this alterative provision.

Figure 43: Gap analysis (accessibility of alterative provision)

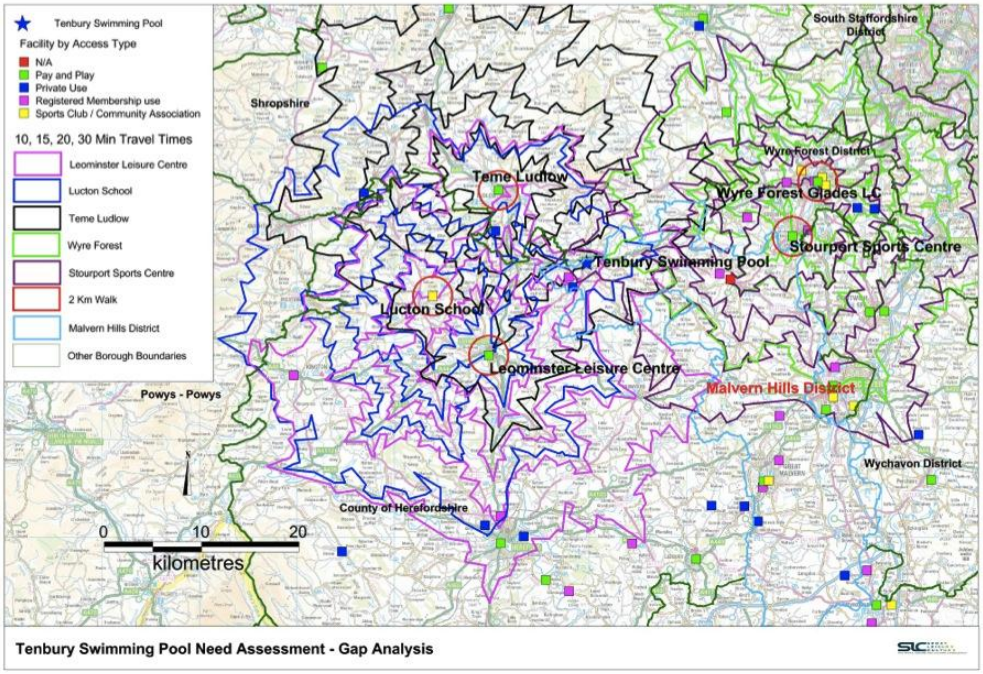


Table 86: Gap analysis: Tenbury Pool alternatives - Teme Ludlow

Travel time catchment	Swim lessons membership	Swim membership	Fitness membership	Total
2km	7	2	2	**11**
10min drive time	5	1	1	**7**
15min drive time	29	10	17	**56**
20min drive time	9	21	33	**63**
Total	**50**	**34**	**53**	**137**

Table 87: Gap analysis: Tenbury Pool alternatives – Leominster Leisure Centre

Travel time catchment	Swim lessons membership	Swim membership	Fitness membership	Total
2km	3	1	1	**5**
10min drive time	3	0	2	**5**
15min drive time	14	7	8	**29**
20min drive time	27	32	33	**92**
Total	**47**	**40**	**44**	**131**

Table 88: Gap analysis: Tenbury Pool alternatives – Lucton School

Travel time catchment	Swim lessons membership	Swim membership	Fitness membership	Total
2km	1	0	0	**1**
10min drive time	4	3	2	**9**
15min drive time	4	0	4	**8**
20min drive time	9	5	4	**18**
Total	**18**	**8**	**10**	**36**

Table 89: Gap analysis: Tenbury Pool alternatives – Wyre Forest Glades

Travel time catchment	Swim lessons membership	Swim membership	Fitness membership	Total
2km	0	0	0	**0**
10min drive time	0	0	0	**0**
15min drive time	2	0	1	**3**
20min drive time	5	0	2	**7**
Total	7	0	3	**10**
Total	**18**	**8**	**10**	**36**

Table 90: Gap analysis: Tenbury Pool alternatives – Stourport Sport Centre

Travel time catchment	Swim lessons membership	Swim membership	Fitness membership	Total
2km	0	0	0	**0**
10min drive time	1	0	1	**1**
15min drive time	17	1	2	**17**
20min drive time	28	2	12	**28**
Total	**46**	**3**	**15**	**46**

The above tables suggest that within a 20-minute drive time catchment (an industry standard suggested by Sport England, above which travel time decay begins to occur) that Teme Ludlow (137) and Leominster Leisure Centre (131) would be able to absorb the most existing pool users. However the percentage of total users (940) that could access these sites is relative low at 15% and 14% respectively.

Tables 91 and 92 shows that the number of current pool users which fall within the District (residents of Malvern Hills) is low at 37%. The majority of the utilisation of the pool is taken up by residents from alterative authorities. Given the financial support being provided by the Council, this data is an important consideration.

Table 91: Gap analysis: Malvern Hills residency

Swim user	Malvern resident	Non-Malvern resident
Swim	32	311
Swim Lessons	139	368
Fitness	178	214
Total	**349**	**591**
Percentage	**37.1%**	**62.9%**

Table 92: Gap analysis: Other local authority residency

Swim user	Fitness	Swim	Swimming Lessons	Total (% of total)
Herefordshire	44	17	112	173 (18.4%)
Shropshire	164	48	127	339 (36.1%)
Wyre Forest	4	0	71	75 (8.0%)
Wychavon	1	0	1	2 (0.2%)
Worcester	1	1	0	2 (0.2%)

A further analysis has been undertaken to identify if the travel time catchment around alternative swimming provision was extended to 30-minutes (given the rural nature of the area and high access to vehicles), which current users of the pool would be able to access an alternative facility, and of those that can't access a site, how many are residents of the District.

Table 93: Gap analysis: Tenbury Pool alternatives – overall accessibility for current users

		Malvern swimmers		From other local authorities	
Travel time catchment from other swim facilities	**Membership**	**Access to alternative pool provision (within catchment)**	**No alternative pool provision**	**Alternative pool provision (within catchment)**	**No alternative pool provision**
15min drive time	Swim Lessons	12	127	77	234
	Swim	2	30	19	47
	Fitness	1	177	38	176
	Total	***15***	***334***	**134**	**457**
20min drive time	Swim Lessons	98	41	255	56
	Swim	18	14	56	10
	Fitness	139	39	195	19
	Total	**255**	***94***	**506**	**85**
30 min drive time	Swim Lessons	139	0	311	0
	Swim	32	0	66	0
	Fitness	169	0	214	9
	Total	**340**	**0**	**591**	**9**
Total in each	**Malvern residents users: 349 / Non-Malvern resident users: 591**				

14.5.4 Summary

Given the location of the pool there is limited alternative provision within an expected travel time (20 minutes). Residents of the District are not the main users of the pool although if the pool was lost this would impact these residents the most, in terms of accessibility to alternative facilities.

However if the catchment of the main sites was extended to a 30 minute travel time, all current pool users within the District would be accommodated.

14.6 SUPPLY: AVAILABILITY

14.6.1 Introduction

This section considers the availability (in terms of capacity) of alterative provision if the pool was to close. This aligns with the analysis to the tables from the previous section (accessibility) to identify whether there is sufficient capacity at alterative facilities that can be accessed by current users (within an acceptable travel time).

14.6.2 Facility catchment capacity (current demand/capacity)

Table 94 illustrates that all alternative pool provision that could be accessed within a 30-minute travel time from the pool has significant spare capacity based on Sport England's FPM projections.

Table 94: Local pool capacity

Facility/ catchment	Facility capacity (vpwpp)	Current utilised capacity (vpwpp)	% utilised capacity
Tenbury Swimming Pool	***1,865***	***767***	***41%***
15-20 minute drive time catchment of Tenbury Pool*			
Teme Ludlow	3,716	1,301	35%
Leominster Leisure Centre	2,907	1,323	46%
20-30 minute drive time catchment of Tenbury Pool			
Stourport Sports Centre	2,708	1,256	46%
Lucton School	458	202	44%

*No pools are within a 15-minute drive time catchment that fall within the FPM analysis criteria (see Section 7). The full table op capacity and utilisation is provided in annex A.

14.6.3 Summary - Impact of reduced pool capacity.

The above table suggests that capacity and availability of suitable facilities is not an issue and will not be a barrier to the transfer of demand if the pool was to close. This however should be followed up with a review of actual operational levels of each of these facilities.

The key issue is accessibility. The closure of the site would mean the majority of current users would be forced to travel in excess of 20-minutes to access alternative pool provision. The net increase in travel time will impact the current users from the District more than current users from other authorities (given their proximity to other sites).

14.7 FACILITY PLANNING MODEL

14.7.1 Introduction

The facilities planning model is used as an industry best practice model for identifying latent demand. This demand is based on ONS 2011 populations projections (for 2013) and analysed at a local authority level. Assumptions (generated by Sport England) are based on nationwide surveys and consider the following:

- Capacity of different types of facilities of varying sizes – based on a peak time capacity (visits per week per peak period - vpwpp)
- Age of facilities and date of refurbishments (therefore attractiveness)
- Opening hours and access policy
- Travel time decay and resident mobility
- Demographic profile of catchments and population projections
- Cross border migration of users (import and export of demand)
- Supply scaled to account for a comfort factor
- ONS 2013 populations (latest household survey)
- Minimum size of facilities (160 sq m water space or less than 20 metres);
- Include all Operational Indoor Pools available for community use i.e. pay and play, membership, Sports Club/Community Association
- Exclude all pools not available for community use i.e. private use
- Exclude all outdoor pools i.e. Lidos.

The results for swimming provision for Malvern Hills District are provided below. The full background to each of these tables can be found in Annex b. This information has not been duplicated in the body of this report, however key conclusions from the FPM have been provided at this end of this section with regard to the wider project context. The FPM analysis accounts for the two scenarios:

- Run 1: Assumes Tenbury Pool remains open and operational
- Run 2: Assumes the immediate closure of Tenbury Pool.

Table 95: Supply of pools

Supply	With Tenbury Pool	Without Tenbury Pool
Number of pools	5	4
Number of pool sites	4	3
Supply of total water space in sqm	1,254	1,004
Supply of publicly available water space in sqm (scaled with hrs avail in pp)	747.59	532.44
Supply of total water space in VPWPP	6,479	4,615
Waterspace in sqm per 1000	16.6	13.3

Table 96: Pool demand

Demand	With Tenbury Pool	Without Tenbury Pool
Population	75,509	75,509
Swims demanded –vpwpp	4,582	4,582
Equivalent in waterspace – with comfort factor included (see annex b)	755.35	755.35
% of population without access to a car	12.8	12.8

Table 97: Supply and demand balance

Supply/Demand Balance	With Tenbury Pool	Without Tenbury Pool
Supply - Swimming pool provision (sqm) scaled to take account of hours available for community use	747.59	532.44
Demand - Swimming pool provision (sqm) taking into account a 'comfort' factor	755.35	755.35
Supply / Demand balance - Variation in sqm of provision available compared to the minimum required to meet demand.	-7.76	-222.91

Table 98: Satisfied demand

Satisfied Demand	With Tenbury Pool	Without Tenbury Pool
Total number of visits which are met	4,244	4,053
% of total demand satisfied	92.6	88.5
Total throughput	258,958	207,069
% of demand satisfied who travelled by car	87.7	88.2
% of demand satisfied who travelled by foot	7.8	7.3
% of demand satisfied who travelled by public transport	4.5	4.5
Demand Retained	2,872	2,504
Demand Retained -as a % of Satisfied Demand	67.7	61.8
Demand Exported	1,372	1,549
Demand Exported -as a % of Satisfied Demand	32.3	38.2

Table 99: Unmet demand

Unmet Demand	With Tenbury Pool	Without Tenbury Pool
Total number of visits in the peak, not currently being met	338.31	529.14
Unmet demand as a % of total demand	7.40	11.50
Equivalent in Water space sqm - with comfort factor	55.77	87.21
% of Unmet Demand due to ;		
Lack of Capacity -	0.05	0.04
Outside Catchment -	99.95	99.96
Outside Catchment;	99.95	99.96
% Unmet demand who do not have access to a car	58.30	42.33

Unmet Demand	With Tenbury Pool	Without Tenbury Pool
% of Unmet demand who have access to a car	41.65	57.63
Lack of Capacity;	0.05	0.04
% Unmet demand who do not have access to a car	0.01	0.01
% of Unmet demand who have access to a car	0.04	0.03

Table 100: Used capacity

Used Capacity	With Tenbury Pool	Without Tenbury Pool
Total number of visits used of current capacity	3699	2943
% of overall capacity of pools used	57.1	63.8
% of visits made to pools by walkers	9.4	10.1
% of visits made to pools by road	90.6	89.9
Visits Imported;		
Number of visits imported	827	439
As a % of used capacity	22.4	14.9
Visits Retained:		
Number of Visits retained	2872	2504
As a % of used capacity	77.6	85.1

14.7.2 FPM Swimming pools analysis – key conclusions

As per the analysis within the rest of this report, all feasible alternative provision within the District is located in the southern half of the authority (over a 30 minute drive time from the pool). The demand for the current pool is projected at 767 visits per week in the peak period vpwpp. Demand per head in the District is the lowest of all neighbouring authorities, emphasising the demographic profile of the authority (60.7 vpwpp per 1,000 population).

The overall level of satisfied demand across the District only falls marginally if the pool is lost. Of the visits by Malvern residents, 191 vpwpp would be unsatisfied within scenario 2 (which is 52% of current demand from Malvern residents), the rest of these residents would use alternative provision outside of the District.

The vast majority of unmet demand, 99.96% in scenario 2 would be due to residents being outside of alternative facility catchments, for 42% of these residents it is because they do not have access to a vehicle. For the remainder the model accounts for a travel decay factor if residents are required to travel beyond a 20-minute drive time.

Comparing this theoretical analysis with our local assessment contained within the above sections, we can provide the following critique of the FPM conclusions:

- The actual proportion of usage of the pool by Malvern residents is significantly below the FPM projections (37% compared with 48%), assuming consistent frequency of pool users across membership
- Current utilisation of the pool is higher than projected at peak times (over 1,000 vpwpp compared with 767 vpwpp)
- The current user profile of the pool is a lot more local to Tenbury than projected in the FPM (78% reside in under 15 minutes drive time from the site). Given that

this is where the majority of projected unsatisfied demand is likely to reside, this percentage figure for future unmet demand amongst Malvern residents is likely to be higher than provided in the FPM.

14.7.3 FACILITY SHARE

Table 101, based on Sport England's Facility Planning Model (FPM) shows the relative facility share of facilities across Malvern Hills District (specific to the local authority, accounting for the import and export of demand) compared to the regional average. The relative share is calculated from facility capacity and availability and catchment size and is benchmarked against a national '100' average. Figures above 100 show that the relative share of specific facility types is higher within the local authority or region than the national average. This is a similar measure to facilities per 1000 population but also includes facility capacity and travel modes. It therefore helps to view 'provision' in an equity way, i.e. how much share of facilities do people have compared to each other. Relative Share is a good measure for showing the different levels of 'opportunity' to access facility space (function of facility size and hours available).

Table 101 suggests there is a relatively high facility share of all core facilities for residents across the District even accounting for the loss of the pool in Tenbury.

Table 101: Relative personal share – Malvern Hills

Facility - Relative share +/-	With Tenbury Pool	Without Tenbury Pool
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	110.4	103.5
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	10.4	3.5

14.8 CONCLUSIONS AND RECOMMENDATIONS

14.8.1 Summary

This needs assessment for Tenbury Pool has set out to identify the following:

- The impact on local residents, particularly in the Malvern Hills District, if the pool was to close
- The likely impact on alterative facilities if the pool was to close.

In conclusion the following points can be drawn:

- The demographic population around the pool is relatively elderly and the market segmentation analysis suggests that swimming participation will be low, with limited scope for growth (due to personal barriers to participation). Population projections suggest that this profile will be perpetuated over the next 10 years
- Swimming participation has declined significantly across the entire area, with the district showing the highest decline compared with neighbouring authorities
- The current performance of the pool has declined gradually over the last 10 years. While total income has remained relatively constant for pool related activities, the peak time throughput has fallen significantly. Given that the pool is already operating well below capacity (visits per week during peak periods), the need for the existing amount of water space is reduced further
- Current demand is very localised. The majority of the population that the pool currently serves is within a 10 minute drive time, and given the location of the site to the very north of the District, the majority of this population reside outside of the District (63%).
- The supply of alternative, accessible provision is limited. If the pool was to close there would be between 52% (FPM) and 73% (SLC gap analysis based on 20 minute drive time catchments) of current users that would not be able to access alternative provision. This would equate to approximately 400 visits per week during peak periods which would be unmet (FPM), of which under half would come from Malvern residents. This level of demand is significantly below the level required to sustainably operate a facility of the size of the existing pool.

14.8.2 Recommendations

It is clear that the existing pool on the Tenbury site does serve a local resident population and a proportion of this population will struggle to find alternative accessible swimming provision if the site was to close. Nevertheless, the overall impact of the pool on swim provision across the District is nominal and the current levels of demand for the pool, particularly from residents that reside within the District boundaries is not sufficient enough to commercially sustain (and strategically justify) the existing facility.

It is therefore concluded that there is insufficient need to support the continued operation of the pool in its current state. The most practical solution would to facilitate easier access for those residents across this rural area, including those in Tenbury, to access sites which are currently between a 20-30 minute drive time catchment (a catchment size which would accommodate all current Malvern Hills District swimmers from the Tenbury site).

ANNEX A. FPM CAPACITY TABLE (ALL SITES)

The following details the capacity and projected capacity of all facilities around Tenbury Pool. Run 1 is with the current pool remaining operational. Run 2 is excluding the pool.

STUDY AREA & FACILTY	FACILITY CAPACITY (vpwpp) (Run 2)	RUN 1 - UTILISED CAPACITY (vpwpp)	RUN 1 - UTILISED CAPACITY (%)	RUN 2 - UTILISED CAPACITY (vpwpp)	RUN 2 - UTILISED CAPACITY (%)
Malvern Hills	**6479 (4615)**	**3,699**	**57**	**2,943**	**64**
Malvern College Sports Complex	1,625	956	59	958	59
Malvern Splash	2,240	1,568	70	1,575	70
Malvern St James School	750	408	54	409	55
Tenbury Swimming Pool	1865 (0)	767	41	0	0
Worcester	**10,499**	**6,558**	**62**	**6,571**	**63**
New College Worcester	1,190	985	83	987	83
The King's School	1,927	1,459	76	1,463	76
Worcester Citizens Swimming Pool	1,146	457	40	459	40
Worcester Fitness & Wellbeing Centre	1,387	1,387	100	1,387	100
Worcester Swimming Pool & Fitness Centre	4,849	2,270	47	2,275	47
Wychavon	**10,532**	**6,930**	**66**	**6,933**	**66**
David Lloyd Club (worcester)	2,167	1,319	61	1,319	61
Droitwich Spa Leisure Centre	2,708	1,577	58	1,580	58
Evesham Leisure Centre	2,813	2,813	100	2,813	100
Pershore Leisure Centre	2,844	1,221	43	1,221	43
Wyre Forest	**12,313**	**7,300**	**59**	**7,382**	**60**
Dw Sports Fitness (kidderminster)	1,560	544	35	546	35
Holy Trinity School	776	675	87	676	87
Sebastian Coe Health Club (mercure Kidderminster Hotel)	2,305	668	29	683	30
Stourport Sports Centre	2,708	1,256	46	1,309	48
Wyre Forest Glades Leisure Centre	4,963	4,158	84	4,168	84
Shropshire South	**9,655**	**4,319**	**45**	**4,503**	**47**
Bridgnorth Sports & Leisure Centre	1,058	1,023	97	1,023	97

STUDY AREA & FACILTY	FACILITY CAPACITY (vpwpp) (Run 2)	RUN 1 - UTILISED CAPACITY (vpwpp)	RUN 1 - UTILISED CAPACITY (%)	RUN 2 - UTILISED CAPACITY (vpwpp)	RUN 2 - UTILISED CAPACITY (%)
Much Wenlock Leisure Centre	2,292	958	42	958	42
Raf Cosford School Of Physical Training	563	220	39	220	39
Teme Church Stretton	1,187	429	36	429	36
Teme Ludlow	3,716	1,301	35	1,484	40
Teme Sparc	840	388	46	388	46
Herefordshire County UA	**16,073**	**9,322**	**58**	**9,441**	**59**
Cloud Nine Health And Leisure Club	1,386	334	24	334	24
Hereford Leisure Pool	3,319	3,319	100	3,319	100
Holmer Park Spa And Health Club	2,773	1,549	56	1,550	56
Ledbury Swimming Pool	2,104	993	47	996	47
Leominster Leisure Centre	2,907	1,323	46	1,428	49
Lucton School	458	202	44	211	46
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Ross-on-wye Swimming Pool	1,856	1,390	75	1,390	75
Tewkesbury	**8,643**	**4,513**	**52**	**4,513**	**52**
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Forest Leisure Coleford	963	795	83	795	83
Forest Leisure Lydney	1,980	1,163	59	1,163	59

Creating a lifelong sporting habit

ANNEX B. SPORT ENGLAND FPM FULL REPORT

Strategic Assessment of need for Pools Provision in Malvern Hills

Facilities Planning Model
Local Runs

Date of report
November 2013

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1 Introduction

1.1. This report provides an overview of the Facility Planning Model (FPM) runs undertaken to assist Malvern Hills District Council in decisions regarding future swimming provision in the district. The runs focused on testing the potential implications of the closure of Tenbury Pool. Specifically, the runs described here modelled the status quo in 2013 (Run 1) and the projected situation in 2013 with the closure of Tenbury Pool (Run 2).

1.2. This report should not be considered in isolation. The analysis within this report should form part of a wider assessment of provision at the local level, using other available information and knowledge.

1.3. Details of the FPM parameters and background to the model are included in Appendix A of this report.

1.4. This report provides analysis of the two runs under the headings of: Supply; Demand; Supply/Demand Balance; Satisfied Demand; Unmet Demand; Used Capacity; and Relative Share. Overall conclusions are also provided.

2 Supply of Pools

Malvern Hills	RUN 1	RUN 2
Table 1 - Supply	**2013**	**2013**
Number of pools	5	4
Number of pool sites	4	3
Supply of total water space in sqm	1254	1004
Supply of water space in sqm , scaled by hours available in the pp	747.59	532.44
Supply of total water space in VPWPP	6479	4615
Waterspace per 1000	16.6	13.3

2.1. In the base position (Run 1) there are 5 Pools within Malvern Hills included in the modelling. These pools are divided between 4 sites and their characteristics are summarised in the table below. The weight factors are designed to make facilities less attractive as they age and are a function of both the year a facility was built and whether there has been any refurbishment.

Site Name	Type	Area (sq m)	Yr Build	Yr Refurb	Weight	Public/ Comm	Hrs in pp	Total Hrs	Capacity (vpwpp)
MALVERN COLLEGE SPORTS COMPLEX	Main/General	325	2009		1.00	P	30	34	1625
MALVERN SPLASH	Leisure Pool	312.5	1989	2010	0.94	P	42	84	2240
MALVERN SPLASH	Learner/Teaching/Training	6					52	105	
MALVERN ST JAMES SCHOOL	Main/General	360	1928	2005	0.70	P	12.5	17.5	750
TENBURY SWIMMING POOL	Main/General	250	1971	2004	0.74	P	44.75	71	1865

2.2. After Malvern Splash, Tenbury Pool has the largest capacity of swimming space in the District. The capacity of the sites is measured in visits per week period (vpwpp) and this measure is a product of the size of the swimming area and the hours that is available for general use in the peak period.

2.3. The total water space supplied in Malvern Hills is about 1250 square metres which provides a total capacity of around 6480 vpwpp. The closure of Tenbury Pool in Run 2 reduces this to about 1005 square metres, providing a capacity

of 4615 vpwpp. The closure would represent a reduction of overall water space of about 20%.

2.4. Currently 16.6 square metres of water space is provided per 1000 residents of Malvern Hills; this decreases to 13.3 square metres with the closure of Tenbury Pool in Run 2.

2.5. In addition to the size, available hours and capacity of provision, the spatial spread of the pools is another important aspect of supply. Figure 1, overleaf, indicates the location of the pool sites currently (Run 1) and also provides indicative walking and driving catchments for the study area.

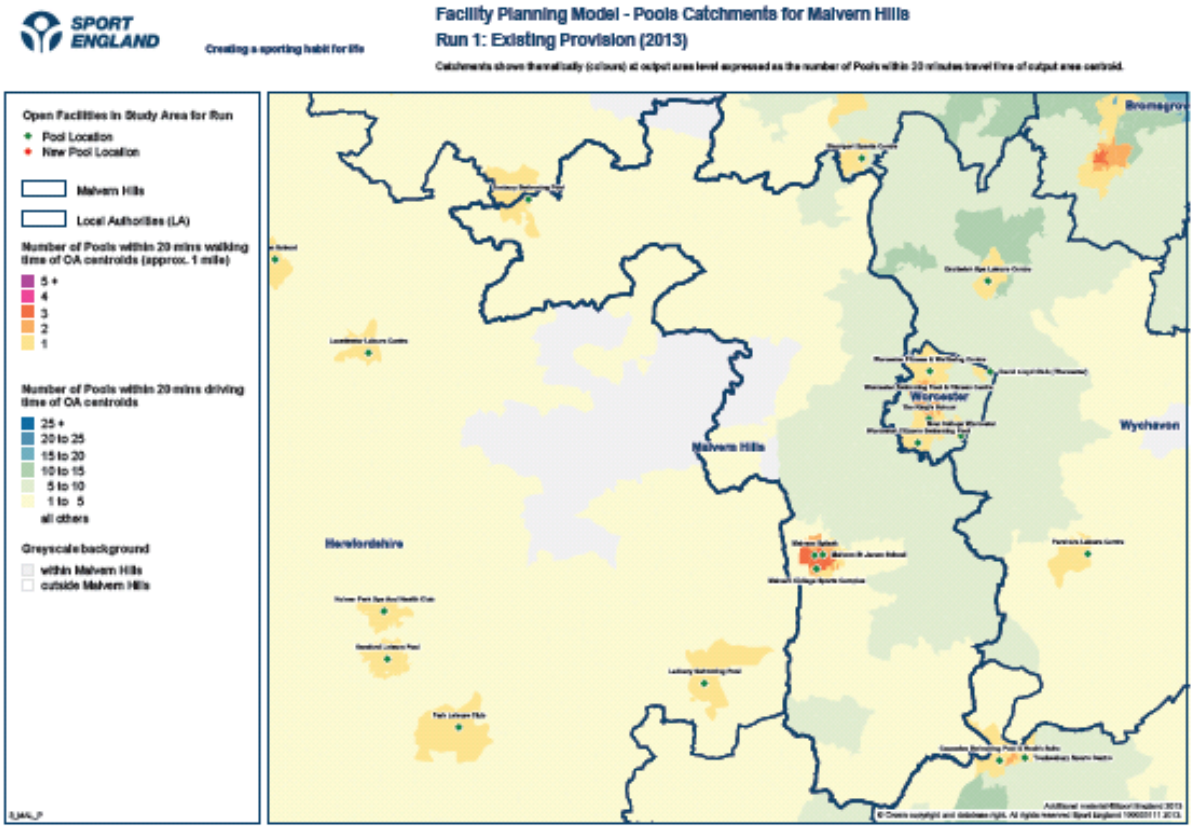

Figure 1 – Run 1 Pool Catchments

2.6. In Run 1, the cluster of pools in Malvern town itself, along the pools in adjoining L.A's provides a network that means the southern area of Malvern District is all within 20 mins drive time of at least one pool. A small area of central Malvern is considered not to fall within a notional 20 minute drive times but it should be acknowledged that some residents will travel over 20 minutes and this is reflected in the way that the model distributes demand.

2.7. Tenbury, located to the north of the district, appears to serve a particular catchment, covering not only northern Malvern but adjacent L.A's too.

2.8. As shown in Figure 2, the closure of Tenbury Pool in Run 2 creates a more significant area of Malvern where any demand within it would not be within a normal 20 minute travel time of a pool. In addition, previous 'walkers' to Tenbury would no longer be able to access provision.

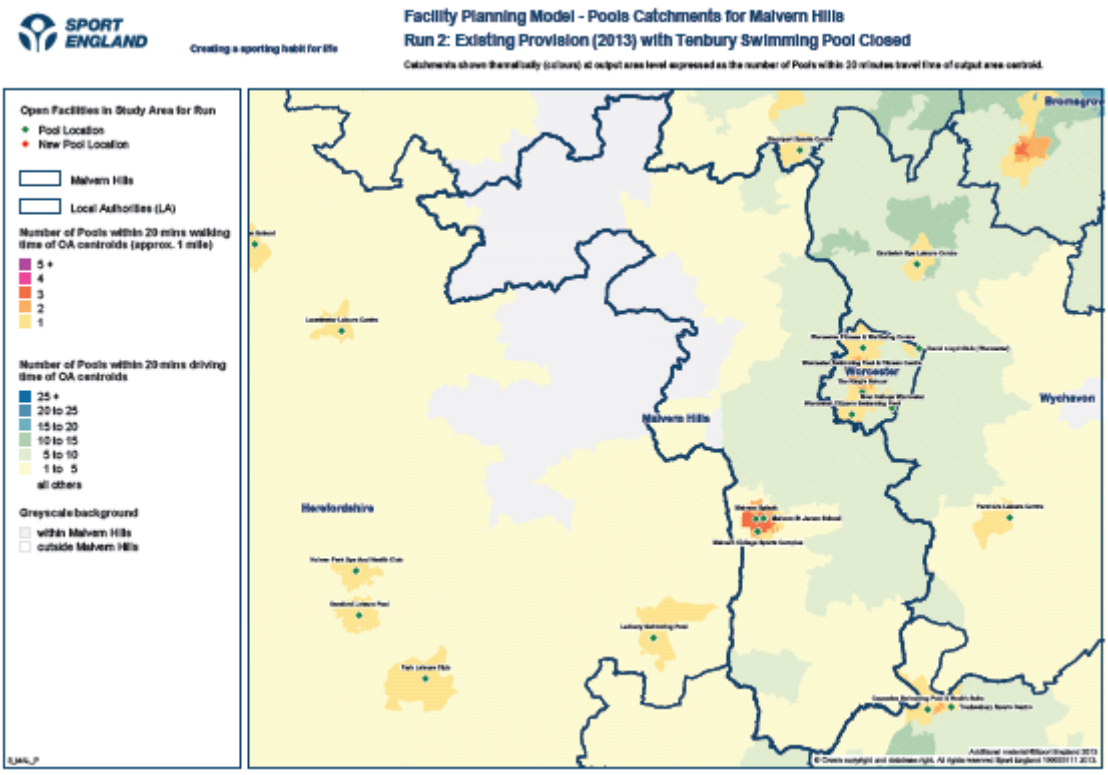

Figure 2 – Run 2 Pool Catchments

3 Demand for Pools

Malvern Hills	RUN 1	RUN 2
Table 2 - Demand	**2013**	**2013**
Population	75509	75509
Swims demanded –vpwpp	4582	4582
Equivalent in waterspace – with comfort factor included	755.35	755.35
% of population without access to a car	12.8	12.8

3.1. The population data for Malvern Hills for 2013 were derived from ONS-based projections using the 2011 census. Demand was calculated using the standard participation and visit frequency rates, which uses the population profile for the district. Please see Appendix A for further information on Demand Parameters.

3.2. Demand per head in Malvern Hills is lower than the English average and lower than that in all the surrounding LAs, as shown in the table below. Demand per head in Worcester is above average; demand per head in Wychavon, Wyre Forest, Forest of Dean and Herefordshire County is below average, but higher than that in Malvern Hills; demand per head in Shropshire South is only slightly greater than that in Malvern Hills.

	vpwpp per 1000 residents
ENGLAND TOTAL	64.6
WEST MIDLANDS TOTAL	64.4
Malvern Hills	60.7
Worcester	65.3
Wychavon	61.7
Wyre Forest	62.2
Shropshire South	60.8
Herefordshire County UA	62.1
Forest of Dean	62.1

3.3. In Malvern Hills 12.8% of the population has no access to a car, compared with 24.9% nationally. This is typical of rural areas.

4 Supply & Demand Balance

Malvern Hills	RUN 1	RUN 2
Table 3 - Supply/Demand Balance	**2013**	**2013**
Supply - Swimming pool provision (sqm) scaled to take account of hours available for community use	747.59	532.44
Demand - Swimming pool provision (sqm) taking into account a 'comfort' factor	755.35	755.35
Supply / Demand balance - Variation in sqm of provision available compared to the minimum required to meet demand.	-7.76	-222.91

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

4.2. When looking at a very simplistic picture of the current overall supply and demand across Malvern (Run 1), demand very slightly exceeds supply. The closure of Tenbury Pool (Run 2) leads to demand exceeding supply by nearly 223 square metres (slightly above the size of a 'standard' 4-lane pool at 212 square metres).

5 Satisfied Demand - demand from Malvern Hills residents currently being met by supply

Malvern Hills	RUN 1	RUN 2
Table 4 - Satisfied Demand	**2013**	**2013**
Total number of visits which are met	4244	4053
% of total demand satisfied	92.6	88.5
Total Annual Throughput	258958	207069
% of demand satisfied who travelled by car	87.7	88.2
% of demand satisfied who travelled by foot	7.8	7.3
% of demand satisfied who travelled by public transport	4.5	4.5
Demand Retained	2872	2504
Demand Retained -as a % of Satisfied Demand	67.7	61.8
Demand Exported	1372	1549
Demand Exported -as a % of Satisfied Demand	32.3	38.2

5.1. Of the 4582 visits currently generated by Malvern residents, 4244 are thought to be satisfied by the existing network of provision (Run 1). This represents over 92% of demand

5.2. The closure of Tenbury Pool in Run 2 reduces this to 88.5%, with 4053 vpwpp being satisfied.

5.3. As expected, given the high levels of car ownership (see Section 3), the bulk of satisfied demand in both runs is by car. The percentage of demand satisfied by 'walkers' decreases in Run 2, since walkers in Tenbury can no longer access a pool. The Location and Catchment maps in section 2 indicate that some walkers in Shropshire South will also be affected. The maps only show a nominal 20-minute drive time catchment which means that a large area appears to be outside the driving catchment; however some users will drive up to 30 minutes to access a pool.

5.4. Satisfied Malvern demand may not necessarily be met by pools within Malvern District. Swimmers will generally access the nearest or most attractive pool regardless of whether it is within the local authority of their residence or not. Whilst the majority of the satisfied demand in both runs is retained in Malvern Hills, a significant proportion is exported. This export effect increases in Run 2,

as would be expected when residents no longer have the option of using the pool at Tenbury.

5.5. Demand is mainly exported to Worcester City (16% of satisfied demand in Run 1), as shown in the pie charts below. In Run 2 there is an increase in export to all LAs, but especially to Shropshire South, Wyre Forest, Herefordshire County and Worcester City. This is illustrated in Figure 3 overleaf.

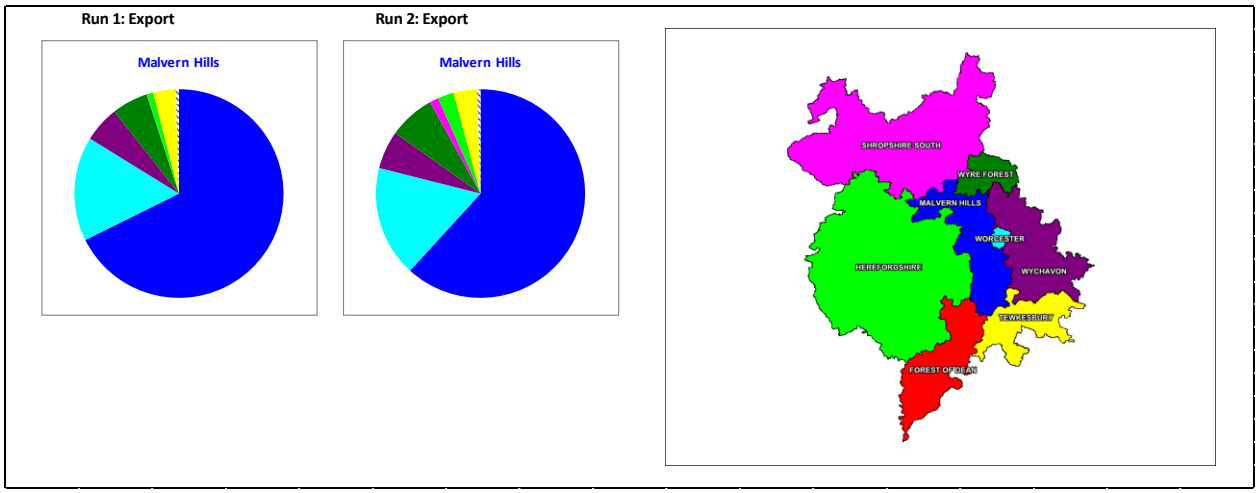

Figure 3 – Destination of Satisfied Demand.

6 Unmet Demand - demand from Malvern Hills residents not currently being met

Malvern Hills	RUN 1	RUN 2
Table 5 - Unmet Demand	**2013**	**2013**
Total number of visits in the peak, not currently being met	338.31	529.14
Unmet demand as a % of total demand	7.40	11.50
Equivalent in Water space m2 - with comfort factor	55.77	87.21
% of Unmet Demand due to ;		
Lack of Capacity -	0.05	0.04
Outside Catchment -	99.95	99.96
Outside Catchment;	99.95	99.96
% Unmet demand who do not have access to a car	58.30	42.33
% of Unmet demand who have access to a car	41.65	57.63
Lack of Capacity;	0.05	0.04
% Unmet demand who do not have access to a car	0.01	0.01
% of Unmet demand who have access to a car	0.04	0.03

6.1. Converse to satisfied demand, unmet demand looks at those visits which the model considers cannot be met by the network of provision. Within the model, unmet demand occurs either because there is insufficient capacity at sites or because pools are located at such a distance from demand that swimmers are unable, or unlikely to travel (outside catchment).

6.2. In both runs the main reason that demand is not met is due to its being outside a pool catchment; almost no demand is unmet due to a lack of capacity.

6.3. As would be expected, the removal of Tenbury Pool in Run 2 increases the number of Malvern visits that are considered by the model to be unmet due to some swimmers in Malvern no longer being able or willing to travel to the nearest facility (Outside of catchment).

6.4. This increase in unmet demand for Malvern residents amounts to an additional 191 vpwpp.

6.5. The percentages quoted in the above standard table can be hard to interpret and these have been converted in to vpwpp in the table below (note that the

values in the table above have been rounded to 2dp and those in the table below have been rounded to whole numbers of vpwpp).

	vpwpp not met		
	Run 1	**Run 2**	**Diff.**
Outside Catchment	338	529	191
No Car	197	224	27
Car	141	305	164
Lack of Capacity	0	0	0
No Car	0	0	0
Car	0	0	0

6.6. The table above shows that even in the current position (Run 1) there are both walkers and drivers outside a pool catchment, albeit relatively small numbers in both cases. In Run 2 an additional 27 vpwpp are not met due to walkers being outside a pool catchment and as additional 164 vpwpp are not met due to drivers being outside a pool catchment.

6.7. There there is increased unmet demand in the Tenbury area in Run 2, as would be expected. Unmet demand also increases slightly in the north of Herefordshire County and in Shropshire South. The combined increase in unmet demand observed in the rest of the study area, excluding Malvern District amounts to 178 vpwpp when compared to Run 1.

7 Used Capacity - How well used are the facilities?

Malvern Hills	RUN 1	RUN 2
Table 6 - Used Capacity	**2013**	**2013**
Total number of visits used of current capacity	3699	2943
% of overall capacity of pools used	57.1	63.8
% of visits made to pools by walkers	9.4	10.1
% of visits made to pools by road	90.6	89.9
Visits Imported;		
Number of visits imported	827	439
As a % of used capacity	22.4	14.9
Visits Retained:		
Number of Visits retained	2872	2504
As a % of used capacity	77.6	85.1

7.1. The run 1 average used capacity level across the pool stock in Malvern is just over 57%. This increases to just under 64% in Run 2 but this percentage increase is a result of the reduced level of overall provision rather than the remaining pools becoming more busy.

7.2. Perhaps of greater importance is consideration of how the model currently considers Tenbury Pool to be operating and how the closure of Tenbury Pool may impact on other facilities in the locality. The table overleaf sets out the capacity of each facility and the used capacity of each facility in both runs, including both vpwpp and the subsequent % of capacity utilised.

STUDY AREA & FACILTY	FACILITY CAPACITY (vpwpp) (Run 2)	RUN 1 - UTILISED CAPACITY (vpwpp)	RUN 1 - UTILISED CAPACITY (%)	RUN 2 - UTILISED CAPACITY (vpwpp)	RUN 2 - UTILISED CAPACITY (%)
Malvern Hills	**6479 (4615)**	**3,699**	**57**	**2,943**	**64**
Malvern College Sports Complex	1,625	956	59	958	59
Malvern Splash	2,240	1,568	70	1,575	70
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Forest Leisure Coleford	963	795	83	795	83
Forest Leisure Lydney	1,980	1,163	59	1,163	59

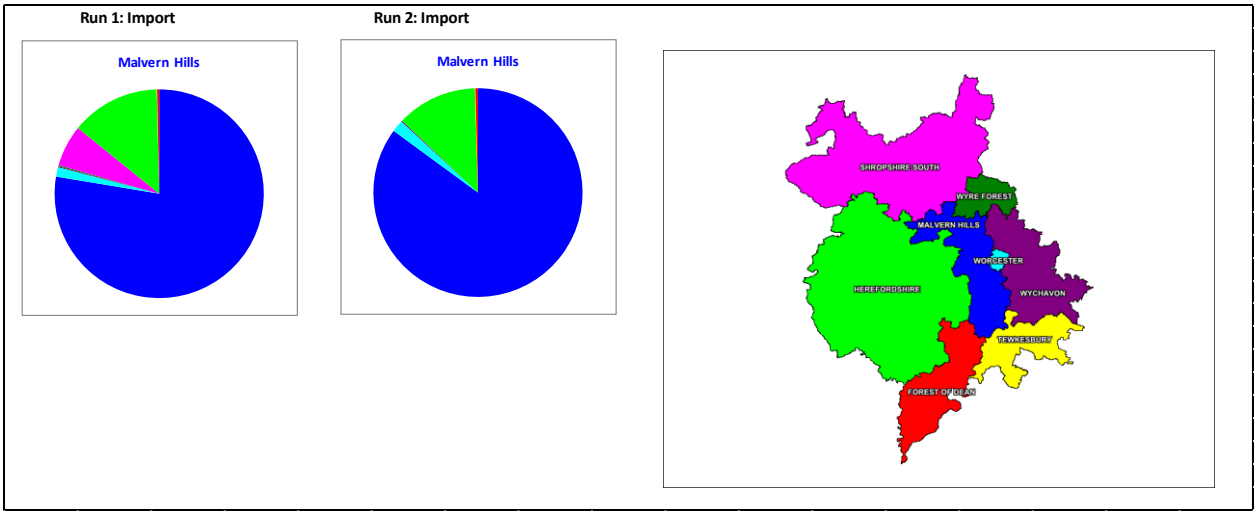
7.3. Focussing firstly on Tenbury Pool, the model projects that the facility has a current capacity of 1865 vpwpp. The model suggests that 797 vpwpp are actually expressed at the facility, meaning that the facility is operating at 41% of capacity.

7.4. When Tenbury Pool is closed in Run 2, the model considers that 398 of the 797 visits formally expressed at Tenbury can be feasibly redirected to other pools. As set out previously, a further 191 vpwpp from Malvern swimmers become unmet because of the perceived 'gap' in provision and 208 visits from outside Malvern are also thought to be unmet.

7.5. Of those visits redistributed very few visits are redirected to the other pools in Malvern (10 visits). Significant redistribution occurs to Teme Ludlow (183 visits), Leominster Pool (105 visits) and Stourport Leisure Centre (53 visits)

7.6. All the facilities where the model redistributes demand continue to operate well within the recommended 'comfort level' of 70%.

7.7. Looking more generally, as expected with less supply, fewer visits are imported in Run 2 than Run 1. Most of the imported visits are from Herefordshire County (13.8% of all satisfied demand in Run 1) and Shropshire South (6.4% of all satisfied demand in Run 1). Import from Herefordshire County decreases to 12.4% in Run 2; no visits are imported from Shropshire South. This is illustrated in the pie charts below.



8 Personal/Relative Share - equity share of facilities

Malvern Hills	RUN 1	RUN 2
Table 7 - Relative Share	**2013**	**2013**
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	110.4	103.5
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	10.4	3.5

8.1. Relative share is useful at looking at 'equity' of provision across local areas. 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. It helps to establish whether residents within a particular area have less or more share provision than other areas when compared against a national average figure which is set at 100.

8.2. Relative to the national average figure, Malvern Hills is well supplied with Pools in Run 1. In Run 2 Malvern Hills is still above average in relative terms, but the overall share has declined.

8.3. For Run 1 the relative share maps below shows that provision is worse in the central part of the LA. In Run 2, the north becomes considerably worse, as would be expected given the change in supply. Share in the northern part of Herefordshire County also becomes very poor in Run 2.

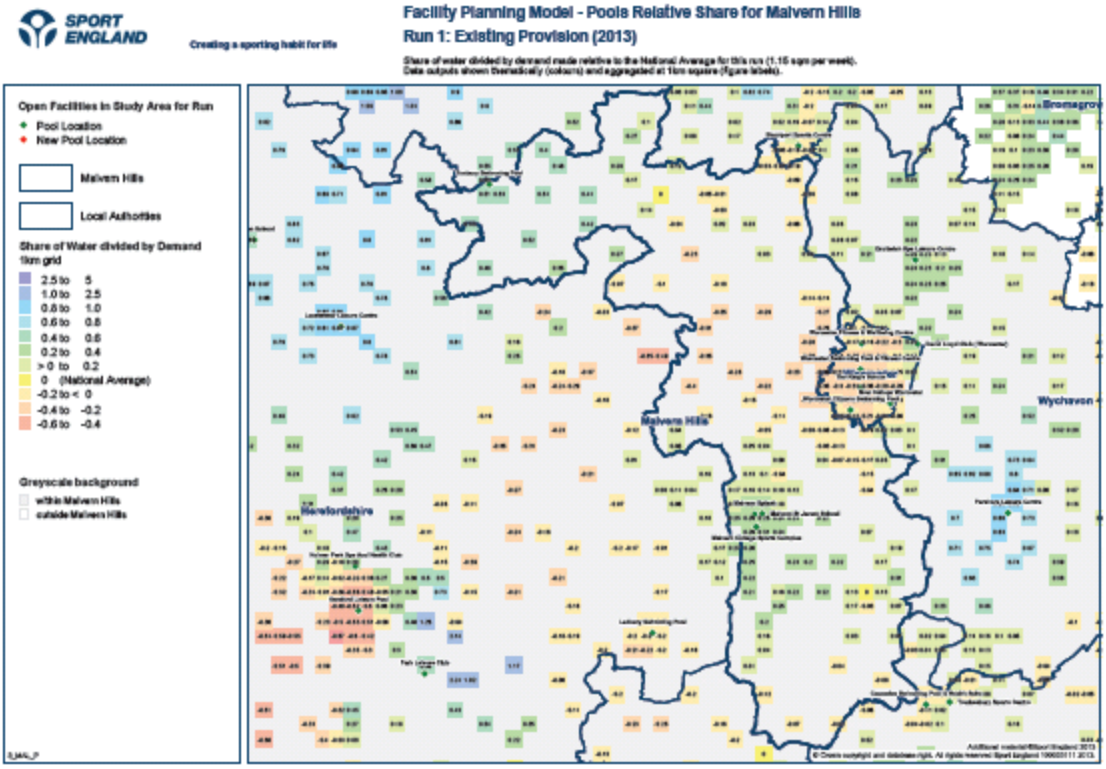


Figure 4 – Relative Share Run 1

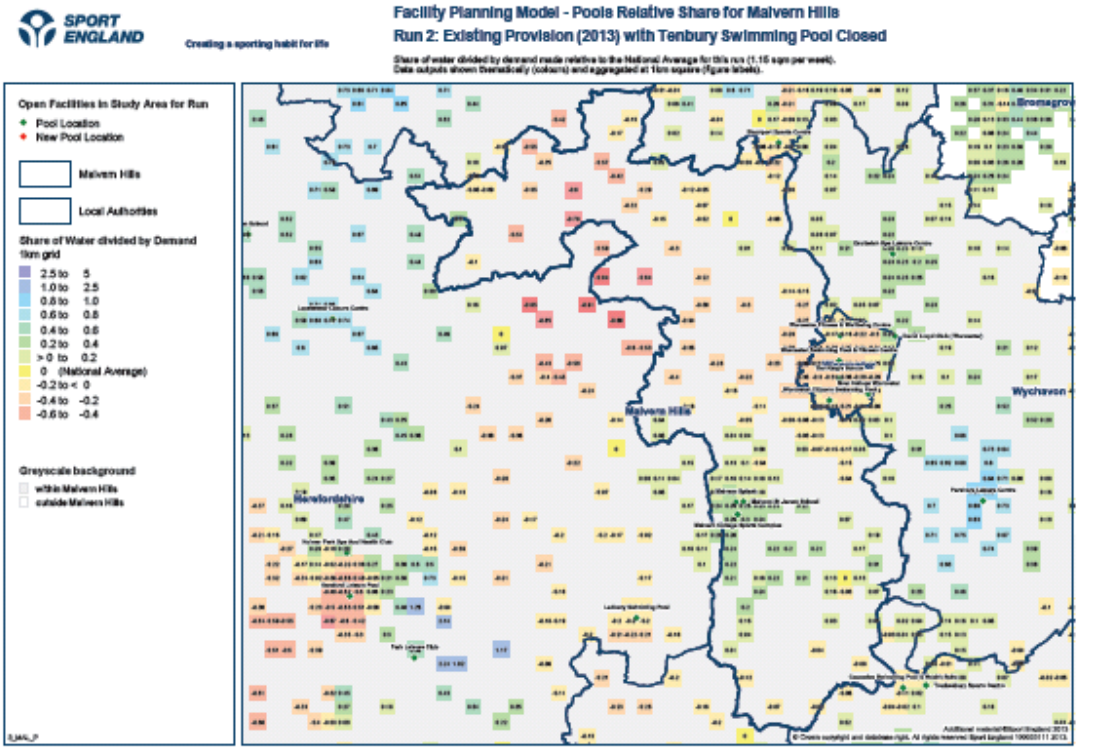


Figure 5 – Relative Share Run 1

9 Summary and Conclusions

9.1. Currently, the vast majority (92%) of demand generated by Malvern residents is satisfied by the network of available pools. Although the bulk of this satisfied demand is retained within Malvern, some is exported, mainly to Worcester City. Virtually all the unmet demand in both runs is due to catchment cover.

9.2. The used capacity levels at Malvern Pools are comfortable, with none exceeding the 70% full, comfort level. Just over 20% of all usage in Malvern is thought to be imported from outside the local authority.

9.3. Tenbury Swimming Pool is sited to the north of Malvern District, close to the administrative boundary with Shropshire and Herefordshire. The pool makes a significant contribution to overall quantitative levels swimming provision in Malvern, equating to 20% of all supply.

9.4. Tenbury pool has a capacity of 1865 vpwpp. Currently, the model projects that about 800 vpwpp are being expressed at the site, meaning that the facility is operating at 41% of capacity. In addition to serving some Malvern residents, the location of the pool means that it also provides for some swimmers that are resident in adjacent authority areas.

9.5. Reducing overall supply through the closure of Tenbury Pool results in an increase in unmet demand. As with the current situation, this is attributed to catchment cover and the ability of swimmers to travel to pools. 191 additional unmet vpwpp from Malvern are observed, giving a total of 529 vpwpp or about 7.5% of all demand being unmet within the district. Unmet demand also increases in adjacent areas, amounting to 208 vpwpp.

9.6. Collectively, unmet demand therefore increases by about almost 400 vpwpp in the area. When compared to the numbers of peak time visits thought to be accommodated currently at Tenbury, this means that about 400 vpwpp (50%) are thought to be capable of being redistributed to other facilities. Virtually all this redistributed demand is to pools not located in Malvern.

9.7. Relative to the overall FPM average Malvern Hills is currently well supplied with Pools; however in Run 2 the share is close to the FPM average. Provision is poorest in the central part of the LA in Run 1 and becomes very poor in the north in Run 2.

9.8. Closing Tenbury will have an impact on local provision for those swimmers in the Tenbury area, both Malvern residents and also those living in L.A's surrounding Malvern's northern administrative boundary.

9.9. Some swimmers are thought by the model to be able to travel to other provision outside of Malvern, but this does mean increased reliance on other facility providers. The long term security of such sites cannot be guaranteed. In addition, some of this perceived 'redistributed' demand may not actually wish to travel. All these factors need to be taken into consideration and explored in detail,

9.10. Whilst some swimmers may be redistributed, the model projects that some will not be and therefore stop participating (unmet demand). In terms of Malvern residents, the closure of Tenbury is projected to result in an increase in unmet demand from 338vpwpp to 529vpwpp. This increase is not insignificant (about 56%). However, this is in the context of a small level of unmet demand currently and overall satisfied demand levels are projected to continue to be at a good level.

9.11. Again, it is encouraged that the perceived increase in unmet demand is explored further and that local intelligence is applied to this report. There may be particular value in exploring the role that smaller swimming facilities, not included in this modelling, play in meeting local demand and how the role of such facilities may be extended should Tenbury Pool close.

Appendix 1

Included within this appendix are the following:

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

Model Description

1. **Background**

1.1. The Facilities Planning Model (FPM) is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with 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].

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.

[1] Award made in 2007/08 year.

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

4. Calculating Demand

4.1. This is calculated by applying the user information from the parameters, as referred to above, to the population[2]. 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].

[2] For example, it is estimated that 7.72% of 16-24 year old males will demand to use a 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 OA's across England & Wales. An OA has a target value of 125 households per OA.

4.3. The use of OA's in the calculation of demand ensures that the FPM is able to reflect and portray differences in demand in areas at the most sensitive level based on available census information. Each OA used is given a demand value in VPWPP by the FPM.

5. Calculating Supply Capacity

5.1. A facility's capacity varies depending on its size (i.e. size of pool, hall, pitch number), and how many hours the facility is available for use by the community.

5.2. The FPM calculates a facility's capacity by applying each of the capacity factors taken from the model parameters, such as the assumptions made as to how many 'visits' can be accommodated by the particular facility at any one time. Each facility is then given a capacity figure in VPWPP. (See parameters in Section C).

5.3. Based on travel time 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 able to assess supply and demand within an area based on the needs of the population within that area.

[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.

5.5. In making calculations as to supply and demand, visits made to sports facilities are not artificially restricted or calculated by reference to administrative boundaries, such as local authority areas. Users are generally expected to use their closest facility. The FPM reflects this through analysing the location of demand against the location of facilities, allowing for cross boundary movement of visits. For example, if a facility is on the boundary of a local authority, users will generally be expected to come from the population living close to the facility, but who may be in an adjoining authority

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

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

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

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

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

in VPWPP is converted back into 'main hall court equivalents', and is called in the output table 'Hall Space in Courts'.

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

7.1. Not all facilities are the same and users will find certain facilities more attractive to use than others. The model attempts to reflect this by introducing an attractiveness weighting factor, which effects the way visits are distributed between facilities. Attractiveness however, is very subjective. Currently weightings are only used for hall and pool modelling, with a similar approach for AGPs is being developed.

7.2. Attractiveness weightings are based on the following:

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

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

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

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

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

7.4. Commercial facilities – halls and pools - whilst there are relatively few sports halls provided by the commercial sector, an additional weighing factor is incorporated within the model to reflect the cost element often associated with commercial facilities. For each population output area the Indices of Multiple Deprivation (IMD) score is used to limit whether people will use commercial facilities. The assumption is that the higher the IMD score (less affluence) the less likely the population of the OA would choose to go to a commercial facility.

8. **Comfort Factor – halls**

8.1. As part of the modelling process, each facility is given a maximum number of visits it can accommodate, based on its size, the number of hours it's available for community use and the 'at one time capacity' figure (pools =1user /6m2 , halls = 5 users /court). This is gives each facility a "theoretical capacity".

8.2. If the facilities were full to their theoretical capacity then there would simply not be the space to undertake the activity comfortably. In addition, there is a need to take account of a range of activities taking place which have different numbers of users, for example, aqua aerobics will have significantly more participants, than lane swimming sessions. Additionally, there may be times and sessions that, whilst being within the peak period, are less busy and so will have fewer users.

8.3. To account of these factors the notion of a 'comfort factor' is applied within the model. For swimming pools, 70% and for sports halls 80% of its theoretical capacity is considered as being the limit where the facility starts to become uncomfortably busy. (Currently, the comfort factor is NOT applied to AGPs due to the fact they are predominantly used by teams, which have a set number of players and so the notion of having 'less busy' pitch is not applicable.)

8.4. The comfort factor is used in two ways;

8.4.1. Utilised Capacity - How well used is a facility? 'Utilised capacity' figures for facilities are often seen as being very low, 50-60%, however, this needs to

be put into context with 70-80% comfort factor levels for pools and halls. The closer utilised capacity gets to the comfort factor level, the busier the facilities are becoming. You should not aim to have facilities operating at 100% of their theoretical capacity, as this would mean that every session throughout the peak period would be being used to its maximum capacity. This would be both unrealistic in operational terms and unattractive to users.

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

9. **Utilised Capacity (used capacity)**

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

9.2. Utilised capacity refers to how much of facilities theoretical capacity is being used. This can, at first, appear to be unrealistically low, with area figures being in the 50-60% region. England figure for Feb 2008 Pools was only 57.6%.

9.3. Without any further explanation, it would appear that facilities are half empty. The key point is not to see a facilities theoretical maximum capacity (100%) as being an optimum position. This, in practise, would mean that a facility would need to be completely full every hour it was open in the peak period. This would be both unrealistic from an operational perspective and undesirable from a user's perspective, as the facility would completely full.

9.4. For examples:

A 25m, 4 lane pool has Theoretical capacity of 2260 per week, during 52 hour peak period.

	4-5pm	5-6pm	6-7pm	7-8pm	8-9pm	9-10pm	Total Visits for the evening
Theoretical max capacity	44	44	44	44	44	44	264

Actual Usage	8	30	35	50	15	5	143

9.5. 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%.

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

10. **Travel times Catchments**

10.1. The model use travel times to define facility catchments. These travel times have been derived through national survey work, and so are based on actual travel patterns of users. With the exception of London where DoT travel speeds are used for Inner & Outer London Boroughs, these travel times are used across the country and so do not pick up on any regional differences, of example, longer travel times for remoter rural communities.

10.2. 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.

10.3. 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.

10.4. The

Facility	Car	Walking	Public transport
Swimming Pool	70.0%	19.0%	11.0%
Sports Hall	75.0%	16.0%	9.0%
AGP Combined Football Hockey	 89.0% 87.1% 95.4%	 9.0% 10.7% 2.6%	 2.0% 2.1% 1.9%

model includes a distance decay function; where the further a user is from a facility, the less likely they will travel. The set out below is the survey data with the % of visits made within each of the travel times, which shows that almost 90% of all visits, both car borne or walking,

are made within 20 minutes. Hence, 20 minutes is often used as a rule of thumb for catchments for sports halls and pools.

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

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

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

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

Inclusion Criteria used within analysis

Swimming Pools

The following inclusion criteria were used for this analysis;

- Include all Operational Indoor Pools available for community use i.e. pay and play, membership, Sports Club/Community Association
- Exclude all pools not available for community use i.e. private use
- Exclude all outdoor pools i.e. Lidos
- Exclude all pools where the main pool is less than 20 meters OR is less than 160 square meters.5
- Include all 'planned', 'under construction, and 'temporarily closed' facilities only where all data is available for inclusion.
- Where opening times are missing, availability has been included based on similar facility types.
- Where the year built is missing assume date 1975[6].

Facilities in Wales and the Scottish Borders included, as supplied by sportscotland and Sports Council for Wales. Scottish facilities use a default weighting due to lack of data on facility age.

Model Parameters used in the Analysis

Pool Parameters

<table>
<tr><td>At one Time Capacity</td><td>0.16667 per square metre = 1 person per 6 square meters</td></tr>
<tr><td>Catchments</td><td>Car: 20 minutes
Walking: 1.6 km
Public transport: 20 minutes at about half the speed of a car

NOTE: Catchment times are indicative, within the context of a distance decay function of the model.</td></tr>
<tr><td>Duration</td><td>60 minutes for tanks and leisure pools</td></tr>
<tr><td>Participation</td><td><table><tr><td>Age</td><td>0 - 15</td><td>16 - 24</td><td>25 - 39</td><td>40 - 59</td><td>60-79</td><td>80+</td></tr></table></td></tr>
</table>

[5] 160m is equivalent to a 20m x 8m pool. This assumption will exclude very small pools, such as plunge pools and hotel pools.
[6] Choosing a date in the mid '70s ensures that the facility is included, whilst not overestimating its impact within the run.

Frequency (vpwpp)		*Male*	13.23	7.91	9.41	8.31	4.85	2.18
		Female	12.72	15.41	16.19	12.84	7.65	1.87
		Age	*0 - 15*	*16 - 24*	*25 - 39*	*40 - 59*	*60-79*	*80+*
		Male	0.92	1.05	0.97	1.02	1.22	1.42
		Female	0.95	0.98	0.88	1.00	1.10	1.19
Peak Period		Weekday: 12:00 to 13:30, 16:00 to 22.00 Saturday: 09:00 to 16:00 Sunday: 09:00 to 16:30						
Percentage in Peak Period		Total: 52 Hours 63%						

Active Communities Malvern Hills District:
A Vision for the Future

Malvern Hills District
Sport and Leisure Strategy 2014 - 2024

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