

Facilities Planning Model Assessment of Swimming Pool Provision for Rother District Council

**Standard Report** 

19 August 2022



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## **EXECUTIVE SUMMARY**

- 0.1 This report provides an initial assessment of the current supply and demand for provision of swimming pools in the Rother District Council area (also referred to as Rother, or the District).
- 0.2 This report has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool.
- 0.3 The key element to be taken from this report is that the majority of the District's demand for swimming pools can be met by the supply accessible to its residents. Most of the met demand is retained within the District.
- 0.4 Unmet demand is low, due mainly to supply being located too far from where residents live.
- 0.5 The pools are estimated to be busy, and two pools are estimated to be full at peak times.
- 0.6 The Rother findings on population, demand, met demand and total unmet demand are very similar to the findings for Hastings.

## Key Findings

- 0.7 The key findings from the supply, demand and access assessment are as follows:
  - 1. There are four swimming pool sites in Rother, each has one main pool. There are no learner pools in the District.
  - 2. Rother's demand for swimming pools, with a comfort factor, is 17% greater than the available supply.
  - 3. In 2022, 78% of the total demand for swimming pools from Rother residents is met.
  - 4. Of Rother's satisfied demand, 70% is retained within the District.
  - 5. Unmet demand is the equivalent of 217 sqm of water. Of which:
    - o 30% is due to lack of capacity.
    - o 71% is because swimming pools are too far away from where residents live.
  - 6. Reachable unmet demand is highest in Beauport, where unmet demand of 114 sqm of water could be met. However, this is insufficient to consider building a new swimming pool to improve accessibility for residents.
  - 7. District-wide, the estimated used capacity of the swimming pools is 62% in the weekly peak period.
  - 8. The estimated used capacity of Bexhill Leisure Pool and Battle Abbey Prep School is 100% in the weekly peak period.

#### Strategic Overview

0.8 Based on this one-year FPM assessment, the strategic overview focus is on the used capacity of the pools. Overall, there is enough swimming pool supply to meet the Rother demand. Therefore, an increase in swimming pool provision is not required.



- 0.9 However, the distribution of demand means that Bexhill Leisure Pool and Battle Abbey Prep School are estimated to be more utilised than the other two pools.
- 0.10 There is scope to increase the hours available for community use at both sites, thereby bringing the proportion of capacity used down to a more comfortable level:
  - Bexhill Leisure Pool could increase its hours from 47.5 to 52.5, an 11% increase.
  - Battle Abbey Prep School is currently available for 13 hours. The increase in hours depends on the Council's swimming offer objectives, relationships and negotiations with the school. The 25m six-lane pool, which is the largest in the District, is available for hire by swimming clubs for club development and by community groups. The size of the pool makes it very suitable for this. However, it is the oldest pool: it opened in 1980 and is unmodernised. It is currently not available for public recreational pay and swim.
- 0.11 The other two pools are open for the maximum 52.5 hours in the weekly peak period:
  - Rye Sports Centre has an estimated used capacity of 63% in the weekly peak period. Therefore, it is operating at a comfortable level. It is the smallest pool in the District, at 25m x 8m, but demand is lower in the Rye area than in Bexhill. It is the newest pool, having opened in 2003, but does not have any competition from other swimming pools nearby.
  - Crowhurst Park has an estimated used capacity of 24% in the weekly peak period but has the largest capacity. There is scope to accommodate more use by the membership at peak times. However, the pool is a free-form shape, which limits its use.
- 0.12 Longer term, if the Council considers replacing a public leisure centre, the assessment should include the need for a dedicated learn-to-swim pool. The depth of the current pools may limit the water space suitable for learn to swim, which requires a depth of 0.9m.
- 0.13 A dedicated learner pool maximises the water space for learn to swim. Swimming is an important life skill, especially in a coastal authority.

## Next Steps

- 0.14 Rother District Council, in reviewing the findings of this report, may also wish to consider applying the assessment to ensure the benefits from the strategic direction being set by Sport England are realised.
- 0.15 It is important to reiterate that this is a one-year assessment and provides the evidence base as of now. The findings should be consulted on to provide a rounded evidence base and address the findings set out.
- 0.16 Given the strategic overview, the following will be significant:
  - Projected population growth in Rother and across the study area.
  - Known committed changes in the current available supply of swimming pools.



0.17 Longer-term local bespoke assessments can be undertaken using Sport England's FPM. These assessments should include population projections with options for changing the swimming pool supply and assessing the collective impact this has on the future demand for swimming pools and its distribution. Such an evidence base can be applied in strategic planning and the Local Plan policy and can be used for securing inward investment.



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## 1. Introduction

- 1.1 This assessment uses Sport England's Facilities Planning Model (FPM) and outputs from the National Run using Active Places data as of March 2022.
- 1.2 The supply assessment is based on swimming pools being open and accessible for community use. If swimming pools are closed temporarily because of Covid-19 or for any other reasons, the local authority should inform Sport England Active Places Power via the contact us link at <a href="https://www.activeplacespower.com">https://www.activeplacespower.com</a>.
- 1.3 This standard run provides an initial assessment of the current supply and demand for provision of swimming pools in the Rother District area. The assessment does not include population growth projections but is a baseline evidence base for swimming pool provision.
- 1.4 To help with comparative analysis, data outputs for the neighbouring local authorities, together with regional and national findings, are included in the data tables.

## Context

- 1.5 The report should form part of a wider assessment of provision at local level, which then provides a rounded assessment and evidence base report. This should include other available information and knowledge from:
  - A sports perspective, such as national sports governing bodies and other sports organisations.
  - A local perspective from the local authority, the facility operator and local sports clubs.
- 1.6 The findings from this FPM standard report should be reviewed and applied with reference to the strategic direction being set by Sport England on:
  - The policies, programmes and interventions proposed to increase sports participation and physical activity.
  - The application of the research applied by Sport England in determining the strategy and the evidence base.
  - The role sports facilities can play in increasing sports participation and physical activity.
- 1.7 The strategy can be accessed at <u>Uniting the Movement | Sport England</u>.

## Future Assessment

- 1.8 Longer-term bespoke FPM local assessments for future provision can be undertaken based on:
  - Review of these findings.
  - Projected population growth and inclusion of residential sites identified in the Local Plan.
  - Options for changes in supply closure/new openings at the same or different locations and on different scales.



- 1.9 The purpose is to identify the impact of these changes on access to swimming pools for Rother residents in future years and whether changes in supply meet future demand.
- 1.10 These findings can support the development of an evidence base in Local Plan policy. In combination with locally derived information and knowledge, the future assessments can also build the picture of provision within an area to inform a long-term evidence base for securing inward investment grant aid applications, and prototype developments, for example, Sport England Leisure Local.

## Report Structure, Content and Sequence

- 1.11 This report sets out the full findings under six assessment headings as follows:
  - Supply How many facilities are there and what is their capacity?
  - Demand Who wants to use the facilities?
  - Satisfied Demand How many people use the facilities? Where do people use facilities (inside and outside the authority) and how do they travel there?
  - Unmet Demand Who is unable to use the facilities and why? Is there insufficient capacity or are people too far away from the facilities?
  - Used Capacity How full are the facilities and where are people coming from (inside and outside the authority)?
  - Local Share Which areas have better or worse provision, considering the number of people who want to use them?
- 1.12 Each assessment heading has a table of main findings, followed by a full definition of these. Each key finding is numbered and in bold typeface. All tables include the findings for the neighbouring authorities, together with regional and England-wide findings. This is because the assessments are based on catchment areas, and catchments extend across local authority boundaries.
- 1.13 Where valid to do so, the findings for the neighbouring local authorities are compared with the findings for Rother, for example, water space per 1,000 population.
- 1.14 Maps to support the findings on facility locations, deprivation, public transport access, unmet demand and local share are also included.
- 1.15 The facilities excluded from the study, with explanations, are listed in Appendix 1. The facility planning inclusion criteria and model parameters are described in Appendix 2.



# 2. Swimming Pool Supply

Supply	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Number of pools	4	9	5	3	7	7	547	2,998
Number of pool sites	4	7	3	2	5	6	376	2,080
Supply in sqm of water	1,149	1,738	878	553	1,563	1,765	121,386	679,254
Supply in sqm of water scaled with hours available in peak period	843	1,610	739	549	1,244	1,373	102,903	581,644
Supply in visits per week in peak period	7,377	14,088	6,466	4,806	10,888	12,016	900,397	5,089,384
Average year built of all sites	1992	1994	1983	1993	1993	1987	1993	1989
Average year built of public sites	1997	1983	1974	1980	1987	1986	1993	1987

**Definition of supply** – This is the supply or capacity of the swimming pools available for community and swimming club use in the weekly peak period. Supply is expressed in the number of visits that a pool can accommodate in the weekly peak period and in square metres of water.

Weekly peak period – This is when the majority of visits take place and when users have most flexibility to visit. The peak period for swimming pools is one hour on weekday mornings, one hour on weekday lunchtimes, five and a half hours on weekday evenings, and seven and a half hours on weekend days. This gives a total of 52.5 hours per week. The modelling and recommendations are based on the ability of the public to access facilities during this weekly peak period.

- 2.1 **Key finding 1** is that there are four swimming pool sites in Rother, each has one main pool. There are no learner pools in the District.
- 2.2 There are three 25m pools in Rother:
  - Bexhill Leisure Pool has four lanes, but is L-shaped.
  - Rye Sports Centre is a four-lane pool but is the smallest in the District.
  - Battle Abbey Prep School is the largest pool and has six lanes.

Crowhurst Park is a free-form pool with 324 sqm of water, making it the second-largest swimming pool in the District.



## Facilities Included in Rother

Site	Operation	Facility Type	<b>Dimensions</b> (m)	<b>Area</b> (sqm)	Year Built	Year Refurb	Peak Hours	Total Hours	Site Capacity (visits per week in peak period)
Battle Abbey Prep School	Educational	6-lane	25 x 15	375	1980		13.0	17.0	813
Bexhill Leisure Pool	Public	4-lane	25 x 10	250	1990	2007	47.5	76.5	1,979
Crowhurst Park	Commercial	Leisure	18 x 18	324	1995	2008	52.5	98.5	2,835
Rye Sports Centre	Public	4-lane	25 x 8	200	2003		52.5	94.5	1,750

## Providers and Swimming Activities

- 2.3 The public centres provide for all swimming activities:
  - Learn to swim (Bexhill Leisure Pool).
  - Casual recreational swimming.
  - Lane and fitness swimming.
  - Swimming development by clubs.
- 2.4 The scale of the public leisure centre pools will limit the activities that can be provided at any one time.
- 2.5 Battle Abbey Prep School provides for hire by swimming clubs for club development and by community groups. It is not available for public recreational pay and swim.
- 2.6 Crowhurst Park provides for recreational swimming by the centre membership.
- 2.7 Overall, in terms of providers, it is balanced provision, with two public leisure centre sites providing for all swimming activities, one commercial site providing for recreational swimming through membership, and one educational site providing for swimming club development and community hire.

## Availability

- 2.8 The public leisure centres have the smallest pools in the District. However, because of their availability, they have the second- and third-largest capacities in the weekly peak period: 1,979 visits at Bexhill Leisure Pool and 1,750 visits at Rye Sports Centre.
- 2.9 Battle Abbey Prep School is available for 13 hours in the weekly peak period. Despite it being the largest pool in scale, the limited availability means it has the smallest capacity of any site, at 813 visits in the weekly peak period.
- 2.10 Crowhurst Park is available for 52.5 hours in the weekly peak period and has the largest capacity, at 2,835 visits in the weekly peak period.



## Age

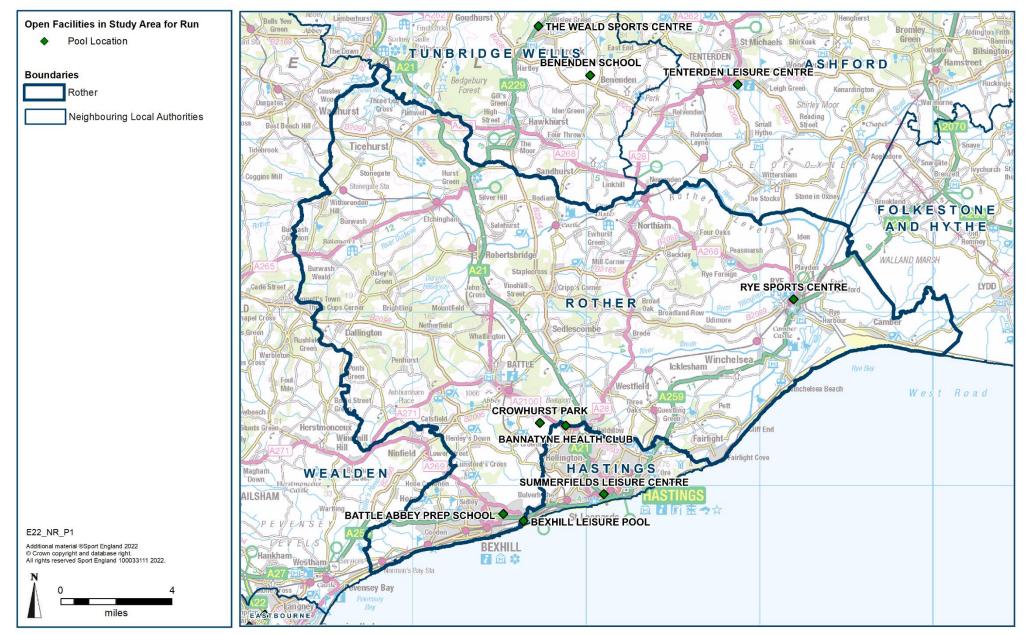
2.11 The average year built of all sites is 1992 and 1997 for the public sites.

## Geographical Location

2.12 Rye Sports Centre is located in the east of the District. The other three sites are located on or very close to the boundary with the Borough of Hastings and are therefore accessible to Hastings' residents. There are no swimming pool sites in the remainder of the District. There is one swimming pool site in Hastings close to the boundary with Rother (see Map 2.1).



## Map 2.1: Swimming Pool Locations in Rother (2022)





# 3. Demand for Swimming Pools

Demand	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Population	98,935	135,339	115,855	93,130	119,767	164,578	9,325,970	57,145,158
Visits demanded in weekly peak period	6,008	9,034	7,353	6,067	7,896	10,434	611,040	3,755,908
Demand in sqm of water with comfort factor included	988	1,486	1,209	998	1,298	1,716	100,479	617,621
% of demand in the 10% most deprived LSOAs nationally	4.0%	2.0%	6.9%	30.8%	0.0%	0.0%	3.3%	10.4%

**Definition of total demand** – This represents the total demand for swimming by gender and for six age bands from 0 to 80+ and is calculated as the percentage of each age band/gender that participates. This is added to the frequency of participation in each age band/gender to arrive at a total demand figure, which is expressed in visits in the weekly peak period and square metres of water. The FPM parameters for the percentage of participation and frequency of participation, for gender and for different age bands, are calculated from Sport England's Active Lives survey up to November 2019 and are set out in Appendix **2**.

- 3.1 The population of Rother in 2022 is 98,935.
- 3.2 The demand for swimming pools from Rother residents is 6,008 visits per week in the peak period in 2022, which equates to 988 sqm of water with a 70% comfort factor.
- 3.3 Key finding 2 is that Rother's demand for swimming pools, with a comfort factor, is 17% greater than the available supply (see Swimming Pool Supply section).
- 3.4 Rother's population is only 5,805 greater than that of Hastings and demand for swimming pools is very similar in both: 988 sqm in Rother and 998 sqm in Hastings.

## Deprivation

3.5 A total of 4% of Rother's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally. Overall, Rother ranks in the 50% most deprived of all local authorities.

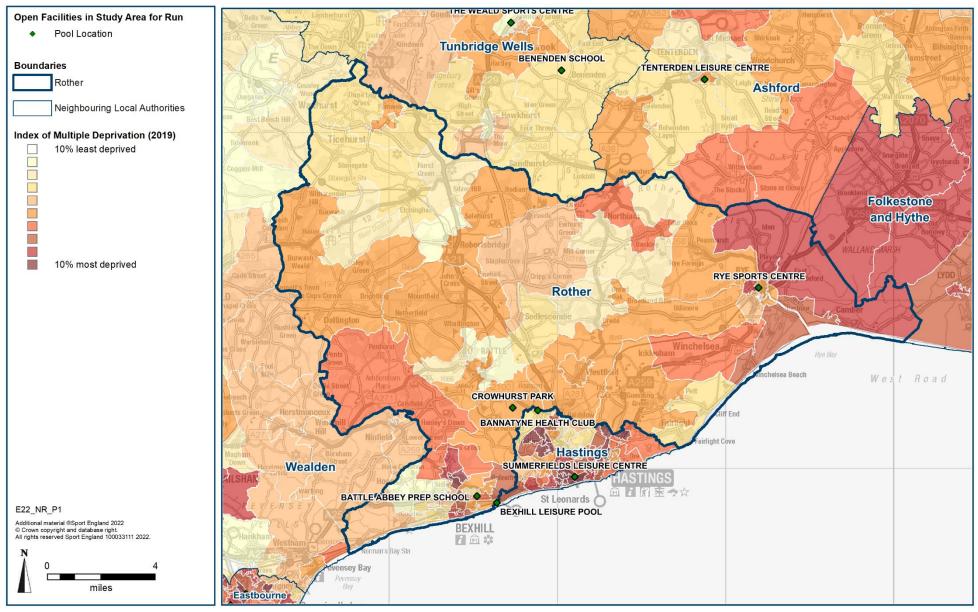


- 3.6 Rye Sports Centre is very close to the largest areas of most deprivation. There are small areas of high deprivation close to Battle Abbey Prep School. Bexhill Leisure Centre is located on the boundary with Hastings and there is an area of high deprivation in Hastings very close to the site (see Map **3.1**).
- 3.7 The Index of Multiple Deprivation (IMD) score is used in the FPM to limit whether people will use commercial facilities, such as Crowhurst Park (see Appendix **2** for definition of IMD). A weighting factor is incorporated to reflect the cost element often associated with commercial facilities. The assumption is that the higher the IMD score (less affluence), the less likely the population of the LSOA would choose to go to a commercial facility.



## Map 3.1: Deprivation in Rother (2019)

Deprivation shown thematically (colours) at lower super output area level by decile.





# 4. Satisfied Demand

Demand from Rother residents currently being met by supply

Satisfied Demand	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Number of visits which are met per week in peak period	4,686	8,395	5,806	4,694	7,129	9,529	562,879	3,395,242
% of total demand satisfied	78.0%	92.9%	79.0%	77.4%	90.3%	91.3%	92.1%	90.4%
Number of visits retained per week in peak period	3,295	7,985	5,280	3,665	5,963	6,728	549,806	3,393,201
Demand retained as a % of satisfied demand	70.3%	95.1%	90.9%	78.1%	83.6%	70.6%	97.7%	99.9%
Number of visits exported per week in peak period	1,391	410	526	1,029	1,167	2,801	13,073	2,042
Demand exported as a % of satisfied demand	29.7%	4.9%	9.1%	21.9%	16.4%	29.4%	2.3%	0.1%

**Definition of satisfied demand** – This represents the proportion of total demand that is met by the capacity at the swimming pools from Rother residents who live within the driving, walking or public transport catchment area of a pool. This includes pools located both within and outside Rother.

- 4.1 **Key finding 3** is that, in 2022, 78% of the total demand for swimming pools from Rother residents is met. This is based on the demand within the travel-time limit of a swimming pool and the capacity of the pools.
- 4.2 Satisfied demand in Rother is the second lowest in the study area, after Hastings (77%) and quite a lot lower than the regional average (92%) and the England average (90%).

## Retained Demand

- 4.3 A subset of the satisfied demand findings shows that much of Rother residents' demand for swimming pools is retained at pools located within the District. This assessment is based on the catchment area of Rother pools and residents in the District choosing to participate at these pools and is known as retained demand.
- 4.4 Key finding 4 is that, of Rother's satisfied demand, 70% is retained within the District.
- 4.5 The model iteratively allocates demand to facilities using a set of distance decay functions and choice parameters. The model also considers the quality of a site based on its age and



management, as supported by Sport England's research. Increasingly, there are other factors that influence which pools residents chose to use, such as other facilities being on the same site, for example, a gym or studio, ease of parking, or a swimming pool programme that provides activities at times when residents wish to participate.

## Exported Demand

- 4.6 The residue of satisfied demand, after retained demand, is exported demand. This is based on Rother residents who live within the travel time of a swimming pool located outside Rother and use that swimming pool.
- 4.7 Rother exports 30% of its met demand to pools outside the District. This is 1,391 visits in the weekly peak period, compared to 3,295 visits retained within the District.
- 4.8 The data from the National FPM Run does not identify how much of Rother's demand goes to which other local authority or swimming pool, but only provides the total figure for exported demand. The destination of exported demand could be identified in a bespoke FPM run.
- 4.9 That said, Bannatyne Health Club in Hastings is on the boundary with Rother and will be accessible to Rother residents. It may be the destination for some of the Rother exported demand (see Map **2.1**).

Accessibility	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
% of population without access to a car	17.8%	15.3%	22.1%	30.8%	16.3%	11.7%	17.6%	24.9%
% of total population within a 20- minute walk of a pool	21.9%	20.4%	31.4%	26.2%	18.9%	19.8%	31.8%	37.7%
% of 10% most deprived population within a 20- minute walk of a pool	0.0%	0.0%	3.0%	13.5%	0.0%	0.0%	1.3%	4.4%
% of demand sat	tisfied wher	travelled:						
by car	85.9%	83.4%	77.9%	79.5%	85.3%	88.3%	80.5%	73.1%
on foot	7.2%	9.0%	12.3%	8.8%	6.7%	7.2%	11.3%	14.3%
by public transport	7.0%	7.6%	9.8%	11.7%	8.0%	4.5%	8.2%	12.5%

## Travel Patterns



**Definition of accessibility** – The FPM uses a distance decay function where the further a user is from a facility, the less likely they will travel. A description of the distance decay function is set out in Appendix 2. The travel-time limits used are:

- Drive is 30 minutes.
- Public transport is 30 minutes (at half the speed of a car).
- Walking is 40 minutes (two miles).

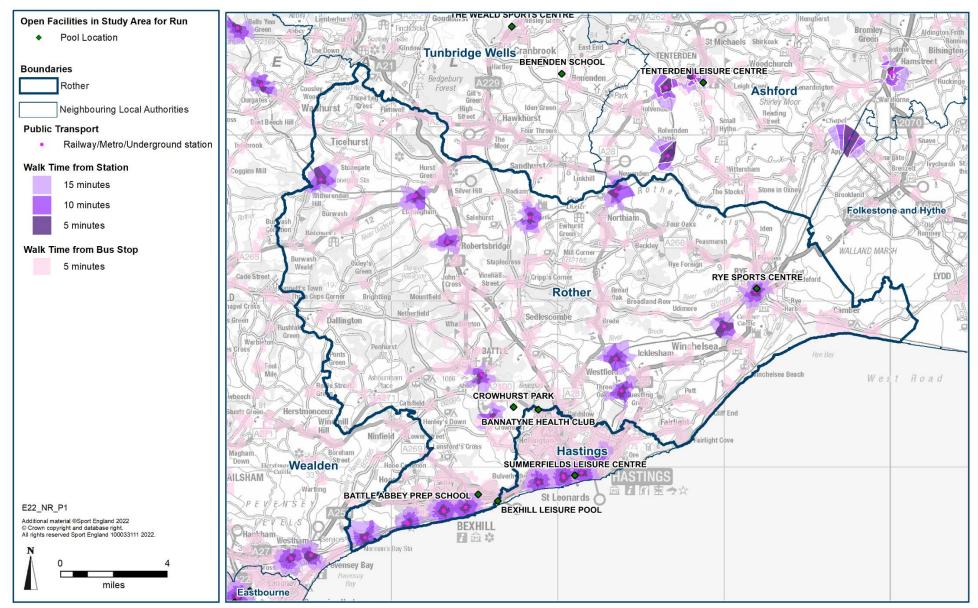
On average, a 20-minute travel time accounts for approximately 90% of visits to a swimming pool.

- 4.10 The percentage of the population without access to a car influences travel patterns to swimming pools. A low percentage, as in this case, means that there is likely to be a larger number of visits to swimming pools by car. However, only 22% of District residents are within a 20-minute walk of a swimming pool.
- 4.11 For residents without access to a car, travel to swimming pools by public transport and walking becomes the choice of travel mode, with each mode accounting for 7% of visits respectively.
- 4.12 Of the four swimming pool sites, three are within a five-minute walk of a bus stop (pink areas in Map **4.1**). The exception is Crowhurst Park.
- 4.13 Rye Sports Centre is the only site within a five-minute walk of a railway station (purple areas in Map **4.1**).
- 4.14 It should be noted that, while residents in the pink and purple areas on the map can access public transport, it does not mean they can reach a swimming pool within 20 minutes via a combination of walking and public transport. Also, in rural areas the service may not be regular.



## Map 4.1: Walking Access to Public Transport in Rother (2022)

Areas within walking time shown thematically (colours) from bus, coach and tram stops, and railway, metro and underground stations.





# 5. Unmet Demand

Demand from Rother residents not currently being met

Unmet Demand	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Number of visits unmet per week in peak period	1,322	639	1,547	1,373	767	905	48,161	360,666
Unmet demand as a % of total demand	22.0%	7.1%	21.0%	22.6%	9.7%	8.7%	7.9%	9.6%
Equivalent in sqm of water with comfort factor included	217	105	254	226	126	149	7,920	59,308
% of unmet demand	d due to:						I	
Facility too far away:	70.5%	98.8%	97.5%	55.3%	100.0%	98.4%	93.1%	88.4%
Without access to a car	34.9%	72.7%	44.0%	51.7%	71.9%	61.9%	71.1%	69.0%
With access to a car	35.6%	26.1%	53.5%	3.6%	28.1%	36.5%	21.9%	19.4%
Lack of facility capacity:	29.5%	1.2%	2.5%	44.7%	0.0%	1.6%	6.9%	11.6%
Without access to a car	10.2%	0.6%	0.6%	26.5%	0.0%	0.2%	4.5%	8.3%
With access to a car	19.3%	0.6%	1.9%	18.2%	0.0%	1.5%	2.4%	3.3%
% of 10% most deprived demand unmet	0.8%	0.3%	1.1%	9.3%	0.0%	0.0%	0.5%	1.6%

**Definition of unmet demand** – This has two parts: demand for swimming pools that cannot be met because:

- 1. There is too much demand for any particular swimming pool within its catchment area and there is a lack of capacity; or
- 2. The demand is located too far away from any swimming pool and is then classified as unmet demand.
- 5.1 Key finding 5 is that unmet demand is the equivalent of 217 sqm of water. Of which:
  - 30% is due to lack of capacity.
  - 71% is because swimming pools are too far away from where residents live.
- 5.2 The findings for Rother are very similar to those for Hastings: unmet demand in Hastings is 226 sqm of water.
- 5.3 Unmet demand due to lack of facility capacity is the equivalent of 64 sqm of water (reviewed in the Used Capacity section). The unmet demand because facilities are too far away is the equivalent of 153 sqm of water.



- 5.4 Demand located too far away from a swimming pool will always exist because it is not possible to achieve complete spatial coverage whereby all areas of an authority are within walking distance of a swimming pool. Also, not everyone will want to, or is able to, drive the full distance.
- 5.5 The overall key point is not that unmet demand outside a catchment exists, but the scale of that unmet demand. Also, if this unmet demand is clustered in one location, further pool provision should be considered in order to improve accessibility for residents.

## Geographical Distribution

5.6 Unmet demand is highest in Bexhill at two locations, each with 7 sqm of water, followed by a third location in Bexhill and in Robertsbridge, each with 6 sqm of water (green kilometre squares in Map **5.1**).

## Meeting Unmet Demand

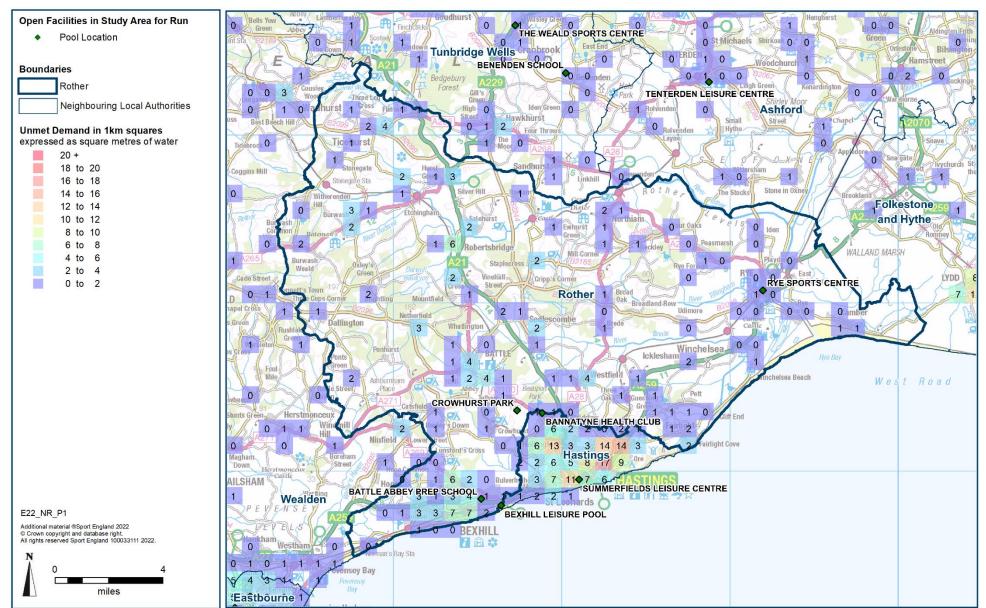
- 5.7 Analysis of the spread of unmet demand shows the level of unmet demand that would be met by a potential new facility in any given location. This 'reachable unmet demand' is calculated for each one-kilometre grid square (figures shown in Map **5.2**).
- 5.8 Key finding 6 is that reachable unmet demand is highest in Beauport, where unmet demand of 114 sqm of water could be met (see Map 5.2). However, this is insufficient to consider building a new swimming pool to improve accessibility for residents.
- 5.9 Reachable unmet demand is high along the route of the A21 but decreases with increasing distance from Hastings. This is due to the shorter travel times to unmet demand in Hastings.

For context, the minimum amount of water space required to justify a new pool would be 160 sqm, which is a 20m x 8m four-lane pool.



## Map 5.1: Unmet Demand for Swimming Pools in Rother (2022)

FPM unmet demand aggregated at 1km square grid expressed as square metres of water and shown thematically (colours).





## Map 5.2: Reachable Unmet Demand for Swimming Pools in Rother (2022)

FPM reachable unmet demand aggregated at 1km square grid expressed as sqm of water (figure labels) and shown thematically (colours).

Open Facilities in Study Area for Run	41 43 38 39 47 53 54 61 71 56 63 63 63 55 55 55 55 55 57 48 44 39 31 30 31 32 31 31 33 31 20 22 21 22 18 20 22 23 32 36 38 35 51 40 37 4
<ul> <li>Pool Location</li> </ul>	36 40 40 44 46 51 57 67 64 59 59 62 59 51 49 62 62 46 44 38 38 27 27 32 80 27 26 30 30 25 22 19 20 21 23 24 26 30 38 44 49 49 38 46 4
	Tunbridge Wells Cranbrook
Boundaries	35 34 35 39 46 47 48 61 69 69 59 66 58 53 45 61 60 53 45 61 60 53 45 37 36 35 30 29 27 27 26 25 25 20 21 22 22 27 28 29 27 35 53 57 36 42 52 5 BENENDEN SCHOOL SCHO
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Neighbouring Local Authorities	32 34 37 39 47 42 43 50 53 59 66 77 67 62 61 70 63 56 47 42 41 36 3 32 36 28 22 14 15 14 19 25 23 23 31 33 40 48 46 58 71 55 63 68 6
Reachable Unmet Demand in 1km squares	30 35 36 40 44 50 49 54 59 63 63 76 71 2 76 70 69 60 51 44 39 34 33 35 32 28 20 16 12 14 18 24 31 34 37 41 52 54/58 58 56 69 59 66 6
expressed as square metres of water	32 32 35 36 39 45 48 52 57 60 65 73 78 69 77 75 63 61 57 50 39 41 36 39 29 23 19 14 13 12 16 21 23 30 43 49 56 60 67 67 67 67 76 68 71 6
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135 to 150	37 38 40 42 44 45 48 52 48 57 64 70 77 84 72 65 69 57 62 46 45 45 47 48 56 27 30 12 12 16 17 21 21 27 34 34 38 57 64 75 82 79 83 84 8
120 to 135	40 39 42 47 48 48 51 54 57 61 66 74 79 87 76 69 74 62 55 47 45 45 45 52 38 32 23 20 17 17 14 17 18 23 32 40 52 60 71 74 82 86 83 86 8
105 to 120 90 to 105	
75 to 90	Salehurst Folkestone and Hythe
60 to 75	43 44 47 50 53 56 61 65 64 58 69 74 75 83 82 73 71 71 63 59 52 48 55 52 50 43 35 27 22 16 15 19 18 24 34 44 51 68 67 71 74 83 87 89 9
45 to 60	45 47 53 57 59 62 57 63 62 62 66 76 83 88 84 70 73 71 65 60 56 59 60 56 50 42 35 33 25 20 23 23 21 24 44 54 59 56 59 70 74 77 84 84 8
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# 6. Used Capacity

How well used are the facilities?

Used Capacity	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Total number of visits used of capacity	4,579	8,513	5,525	4,335	7,726	7,325	571,260	3,395,436
% of overall capacity of pools used	62.1%	60.4%	85.4%	90.2%	71.0%	61.0%	63.4%	66.7%

**Definition of used capacity** – This is a measure of usage at swimming pools and estimates how well used or full facilities are. The FPM is designed to include a 'comfort factor,' beyond which the venues are too full. The pool itself becomes too crowded to swim comfortably, and the changing and circulation areas also become too congested. In the model Sport England assumes that usage over 70% of capacity is busy and that the swimming pool is operating at an uncomfortable level above that percentage.

- 6.1 **Key finding 7** is that, District-wide, the estimated used capacity of the swimming pools is 62% in the weekly peak period.
- 6.2 Ashford has the lowest used capacity in the study area, at 60%. Rother's used capacity is lower than the regional average (63%) and the England average (67%).
- 6.3 Hastings has the highest used capacity, at 90% of swimming pool capacity used at peak times.

Site	Operation	Year Built	Year Refurb	Weight Factor	Peak Hours	Total Hours	<b>Site Capacity</b> (visits per week in peak period)	% of Capacity Used
Battle Abbey Prep School	Edu.	1980		38%	13.0	17.0	813	100%
Bexhill Leisure Pool	Public	1990	2007	65%	47.5	76.5	1,979	100%
Crowhurst Park	Comm.	1995	2008	77%	52.5	98.5	2,835	24%
Rye Sports Centre	Public	2003		85%	52.5	94.5	1,750	63%

## Used Capacity of Individual Sites

- 6.4 **Key finding 8** is that, in the weekly peak period, the estimated used capacity is 100% at Bexhill Leisure Pool and Battle Abbey Prep School, 63% at Rye Sports Centre and 24% at Crowhurst Park.
- 6.5 Variation in the estimated used capacity of sites is primarily caused by the interaction of the following factors (more detail is provided in the subsequent paragraphs):
  - Type of site operator (public/commercial/educational).



- The hours available for community use.
- The level of demand within the travel-time limit from the site and reachable from other pools.
- Imported demand.

## Type of Site Operator and Hours Available

- 6.6 Public leisure centres have higher used capacity because of their 'draw effect', as follows. Public leisure centres:
  - Are accessible for public use and swimming club use.
  - Have extensive opening hours and are proactively managed to encourage and support swimming participation and physical activity.
  - Unlike commercial swimming pools, do not require payment of a monthly membership fee.
  - Provide all the activities for learn to swim, recreational swimming, lane and fitness swimming, and swimming development by clubs.
- 6.7 Both the sites in Bexhill are estimated to be full at peak times. Bexhill is also the location with the highest level of unmet demand. Neither site is open for the full 52.5 hours in the peak period. Therefore, there is potential to increase capacity in this area to meet the unmet demand.
- 6.8 Battle Abbey Prep School is only available for hire by swimming clubs for club development and by community groups and is open for only 13 hours at peak times.
- 6.9 Crowhurst Park, as a commercial facility, is only available for recreational swimming through membership but has the largest capacity in the District. Therefore, it has the lowest utilisation in the peak period.

## Level of Demand

- 6.10 For swimming pools located close together the demand that can reach these sites is shared between the venues, and this contributes to the level of used capacity at each. Bexhill Leisure Pool and Battle Abbey Prep School are close together but are in an area of higher demand.
- 6.11 There is no other swimming pool near Rye Sports Centre. Therefore, it has no competition for demand. However, it is in an area of lower demand.

## Variation in Used Capacity

6.12 The estimated used capacity by site varies for all these inter-related reasons (including imported demand reviewed below) and should be reviewed with the facility operator.



## Imported Demand

Used Capacity	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Number of visits imported per week in peak period	1,284	528	245	670	1,763	597	21,453	2,235
Demand imported as a % of used capacity	28.0%	6.2%	4.4%	15.4%	22.8%	8.2%	3.8%	0.1%
Difference between visits imported and exported	-107	118	-281	-360	596	-2,204	8,381	194

- 6.13 Imported demand is set out under Used Capacity. If residents of neighbouring local authorities swim at a site in Rother, their usage becomes part of the used capacity of Rother's swimming pools.
- 6.14 Rother imports 1,284 visits in the weekly peak period, which is 28% of the used capacity of the District's pools. The location of three sites close to the boundary with Hastings makes them accessible to Hasting residents.

## Import/Export Balance

6.15 Rother exports 107 visits more than are imported and met at the District's pools in the weekly peak period.



# 7. Local Share of Facilities

Equity share of facilities

Local Share	Rother	Ashford	Folkestone and Hythe	Hastings	Tunbridge Wells	Wealden	South East Region	England
Local Share: <1 supply less than demand, 1> supply greater than demand	0.88	1.01	0.59	0.49	1.03	0.94	1.07	1.00
Water space per 1,000 population	12	13	8	6	13	11	13	12
Non-commercial water space per 1,000 population	8	9	6	4	12	11	11	10

**Definition of local share** – This helps to show which areas have a better or worse share of facility provision. It considers the size, availability and quality of facilities, as well as travel modes. Local share is useful for looking at 'equity' of provision. Local share is the available capacity that people want to visit in an area, divided by the demand for that capacity in the area. Local share decreases as facilities age.

- 7.1 Local share shows how access and share of swimming pools differs across the local authority area, as follows:
  - A value of 1 means that there is enough quality supply reachable by the demand.
  - A value of less than 1 indicates a shortage of quality supply that can be reached by the demand.
  - A value greater than 1 indicates a surplus of quality supply that can be reached by the demand.
- 7.2 Overall, local share identifies the areas of the authority where the share of swimming pools is better and worse. The intervention is to try and increase access for residents in the areas with the poorest access to swimming pools.
- 7.3 Rother has a District-wide local share of 0.88. Therefore, demand in the District cannot access sufficient quality supply.
- 7.4 Local share varies across the District. Local share is best in Battle, at 3.1, and nearby, at 2.8 (purple squares in Map 7.1). Demand in this area has access to three times the required quality provision. Local share is also good in Robertsbridge, Sedlescombe and Brede at 1.7 (turquoise squares).
- 7.5 Local share is poorest in the northwest of the District and in Bexhill, with values of between 0.4 and 0.5 (orange squares Map 7.1). The demand in these areas can access less than half the quality provision required.



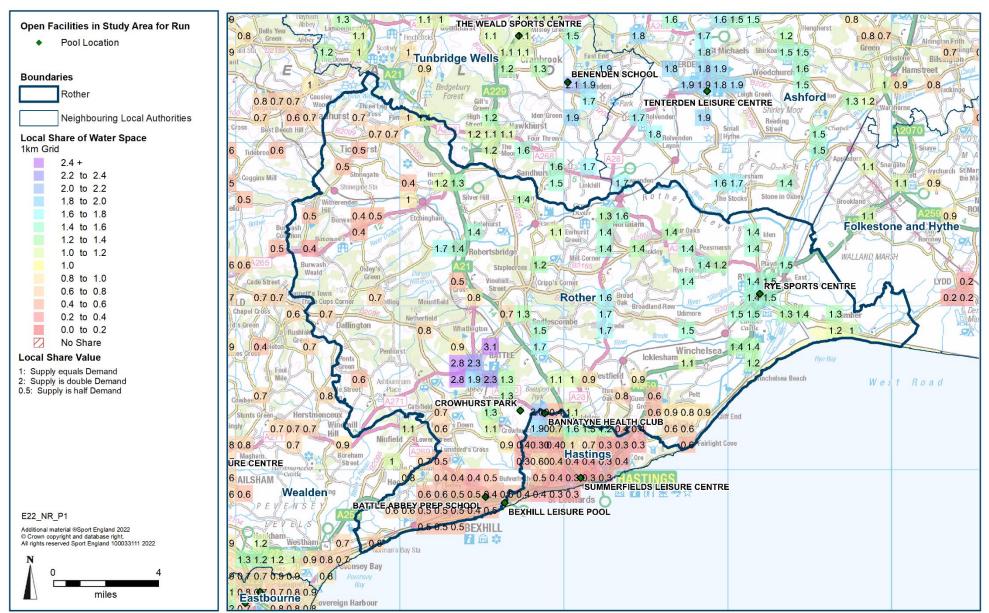
## Comparative Measure of Provision

- 7.6 A comparative measure of swimming pool provision is water space per 1,000 population.
- 7.7 Rother has a total of 12 sqm of water per 1,000 population and 8 sqm of water per 1,000 population excluding the commercial water space.
- 7.8 Rother has the second-highest provision after Ashford and Tunbridge Wells, which both have 13 sqm of water per 1,000 population, and 9 sqm of water and 12 sqm of water respectively excluding commercial water space.
- 7.9 The regional average, at 13 sqm of water is also higher than provision in Rother. The England average is the same provision in Rother.
- 7.10 The findings on water space per 1,000 population are reported because some local authorities like to compare their quantitative provision with others; however, it does not set a standard of provision, and should not be used as such.
- 7.11 The supply and demand assessment for swimming pools in the District is based on the findings from the previous five headings analysed in this report.



## Map 7.1: Local Share of Swimming Pools in Rother (2022)

FPM share of water divided by demand aggregated at 1km square and shown thematically (colours).





# Appendix 1: Facilities Excluded

The audit excludes facilities that are deemed to be either for private use, too small, closed or there is a lack of information, particularly relating to hours of use. The following facilities were deemed to fall under one or more of these categories and therefore excluded from the modelling:

Site	Facility Type	Comments
Battle Sports Centre	Lido	Closed
Buckswood School	Main/General	Private Use
Claremont Preparatory and Nursery School	Lido	Lido
Dale Hill Hotel & Golf Club	Learner/Teaching/Training	Too Small
Flackley Ash Hotel Leisure Club	Learner/Teaching/Training	Too Small
Frewen College	Lido	Lido
Little Common School	Lido	Lido
Poolside Leisure Club	Learner/Teaching/Training	Too Small
St Mary's School	Main/General	Private Use
St Michael's Church of England Primary School (Closed)	Lido	Closed
St Thomas Church of England Aided Primary School	Lido	Lido
Vinehall School	Main/General	Private Use



# Appendix 2: Model Description, Inclusion Criteria and Model Parameters

Included within this Appendix are the following:

- Model Description
- Facility Inclusion Criteria
- Model Parameters

## Model Description

#### 1. Background

- 1.1. The Facilities Planning Model (FPM) is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with **sport**scotland and Sport England since the 1980s.
- 1.2. The model is a tool for helping to assess the strategic provision of community sports facilities in an area. It is currently applicable for use in assessing the provision of swimming pools, sports halls, 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.
  - 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 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 (AGPs).
- 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.



#### 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, considering how far people are prepared to travel to such a facility.
- 3.2. In order to do this, the model compares the number of facilities (supply) within an area against the demand for that facility (demand) that the local population will produce, similar to other social gravity models.
- 3.3. To do this, the FPM works by converting both demand (in terms of people) and supply (facilities) into a single comparable unit. This unit is 'visits per week in the peak period' (VPWPP). Once converted, demand and supply can be compared.
- 3.4. The FPM uses a set of parameters to define how facilities are used and by whom. These parameters are primarily derived from a combination of data including actual user surveys from a range of sites across the country in areas of good supply, together with participation survey data. These surveys provide core information on the profile of users, such as, the age and gender of users, how often they visit, the distance travelled, duration of stay, and on the facilities themselves, such as, programming, peak times of use, and capacity of facilities.
- 3.5. This survey information is combined with other sources of data to provide a set of model parameters for each facility type. The original core user data for halls and pools comes from the National Halls and Pools survey undertaken in 1996. This data formed the basis for the National Benchmarking Service (NBS). For AGPs, the core data used comes from the user survey of AGPs conducted in 2005/06 jointly with sportscotland.
- 3.6. User survey data from the NBS and other appropriate sources are used to update the model's parameters on a regular basis. The parameters are set out at the end of the document, and the main data sources analysed are:
  - Active Lives
    - For the adult survey, this data is collected by an online survey or paper questionnaire on behalf of Sport England. Each annual sample includes about 175,000 people and covers the full age/gender range. Detailed questions are asked about over 200 specific sports categories in terms of participation and frequency.
    - For the children and young people survey, this data is collected through schools with up to three mixed ability classes in up to three randomly chosen year groups completing an online survey.
    - National Benchmarking Service
      - This is a centre-based survey whose primary purpose is to enable centres to benchmark themselves against other centres. Sample interviews are conducted on site. The number of people surveyed varies by year depending on how many centres take part. 10,000 swimmers and 3,500 sports hall users are surveyed per year. This data is used for journey



times, establishing proportions of particular activities in different hall types, the duration of activities and the time of activity (peak period).

- Scottish Health
  - The annual survey is of about 6,600 people (just under 5,000 adults). This data is primarily used to assess participation, frequency, and activity duration.

Other data is used where available. For example, the following data sources are among those which have been used to cross-check results:

- Children's Participation in Culture and Sport, Scottish Government, 2008
- Young People's Participation in Sport, Sports Council for Wales, 2009
- Health & Social Care Information Centre, Lifestyle Statistics, 2012
- Young People and Sport, Sport England, 2002
- Data from Angus Council, 2013/14
- National Pools & Halls Survey, 1996
  - This survey has been used to obtain capacities per sports hall for differing sport types for programming data.

## 4. Calculating Demand

- 4.1. Demand is calculated by applying the user information from the parameters, as referred to above, to the population<sup>1</sup>. This produces the number of visits for that facility that will be demanded by the population.
- 4.2. Depending on the age and gender make-up of the population, this will affect the number of visits an area will generate. In order to reflect the different population make-up of the country, the FPM calculates demand based on the smallest census groupings. These are Output Areas (OAs)<sup>2</sup>.
- 4.3. The use of OAs in the calculation of demand ensures that the FPM is able to reflect and portray differences in demand in areas at the most sensitive level based on available census information. Each OA used is given a demand value in VPWPP by the FPM.

## 5. Calculating Supply Capacity

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

<sup>&</sup>lt;sup>1</sup> For example, it is estimated that 7.72% of 16–24-year-old males will demand to use an AGP 1.67 times a week. This calculation is done separately for the 12 age/gender groupings.

<sup>&</sup>lt;sup>2</sup> Census Output Areas (OAs) are the smallest grouping of census population data and provide the population information on which the FPM's demand parameters are applied. A demand figure can then be calculated for each OA based on the population profile. There are over 171,300 OAs in England. An OA has a target value of 125 households per OA.



- 5.3. Based on travel time information<sup>3</sup> taken from the user survey, the FPM then calculates how much demand would be met by the particular facility, having regard to its capacity and how much demand is within the facility's catchment. The FPM includes an important feature of 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 authority, leaving other areas under-provided. An assessment of this kind would not reflect the true picture of provision. The FPM is able to assess supply and demand within an area based on the needs of the population within that area.
- 5.5. In making calculations as to supply and demand, visits made to sports facilities are not artificially restricted or calculated by reference to administrative boundaries, such as local authority areas. Users are 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 be expected to come from the population living close to the facility, but who may be in an adjoining authority.

## 6. Calculating the Capacity of Sports Halls – 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' in Active Places.
- 6.2. The reason for this is that the HSC is the 'court' equivalent of all the main and activity halls capacities; this is calculated based on hall size (area) and whether it is the main hall or a secondary (activity) hall. This gives a more accurate reflection of the overall capacity of the halls than simply using the 'marked courts' figure. This is due to two reasons:
  - In calculating the capacity of halls, the model uses a different 'At-One-Time' (AOT) parameter for main halls and for activity halls. Activity halls have a greater AOT capacity than main halls see below. Marked courts can sometimes not properly reflect the size

<sup>&</sup>lt;sup>3</sup> To reflect the fact that as distance to a facility increases, fewer visits are made, the FPM uses a travel time distance decay curve, where most 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 considered when calculating how people will travel to facilities.



of the actual main hall. For example, a hall may be marked out with 4 courts, when it has space for 3 courts. As the model uses the 'courts' as a unit of size, it is important that the hall's capacity is included as a 3 'court unit' rather than a 4 'court unit'.

• The model calculates the capacity of the sports hall as 'visits per week in the peak period', and then uses this unit of capacity to compare with demand, which is also calculated as VPWPP. It is often difficult to visualise how much hall space there is when expressed as VPWPP. To make things more meaningful, this capacity in VPWPP is converted back into 'main hall court equivalents' and is noted in the output table as '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 affects the way visits are distributed between facilities. Attractiveness, however, is very subjective. Currently weightings are only used for hall and pool modelling, and a similar approach for AGPs is being developed.
- 7.2. Attractiveness weightings are based on the following:
  - Age/refurbishment weighting pools and 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 facility's attractiveness. The information on year built/refurbished is taken from Active Places. A graduated curve is used to allocate the attractiveness weighting by year. This curve levels off at around 1920 with a 20% weighting. The refurbishment weighting is slightly lower than the new built year equivalent.
  - Management and 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 programme than halls run by local authorities, 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.
  - High weighted curve includes non-education management and a better balanced programme, more attractive.
  - Lower weighted curve includes educational owned and managed halls, less attractive.



- 7.4. Commercial facilities halls and pools: Whilst there are few sports halls provided by the commercial sector, an additional weighing factor is incorporated within the model to reflect the cost element often associated with commercial facilities. For each population output area the Indices of Multiple Deprivation (IMD) score is used to limit whether people will use commercial facilities. The assumption is that the higher the IMD score (less affluence), the less likely the population of the OA would choose to go to a commercial facility.
- 7.5. The English Indices of Deprivation 2019, produced by the Ministry of Housing, Communities and Local Government, measure relative levels of deprivation in 32,844 lower super output areas (LSOAs) in England. Deciles are calculated by ranking the LSOAs from most deprived to least deprived and dividing them into ten groups. IMD is an overall relative measure of deprivation constructed by combining seven domains of deprivation according to their relative weights.

## 8. Comfort Factor – Halls and Pools

- 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 is available for community use, and the 'at one time capacity' figure (pools = 1 user/6m<sup>2</sup>, halls = 6 users/court). This gives each facility a 'theoretical capacity.'
- 8.2. If the facilities were full to their theoretical capacity, then there would simply not be the space to undertake the activity comfortably. In addition, there is a need to take account of a range of activities taking place which have different numbers of users; for example, aqua aerobics will have significantly more participants than lane swimming sessions. Additionally, there may be times and sessions that, while being within the peak period, are less busy and so will have fewer users.
- 8.3. To account for these factors the notion of a 'comfort factor' is applied within the model. For swimming pools, 70%, and for sports halls, 80%, of their theoretical capacity is considered as being the limit where a facility starts to become uncomfortably busy. (Currently, the comfort factor is <u>not</u> applied to AGPs due to the fact they are used by teams which have a set number of players, therefore the notion of having a 'less busy' pitch is not applicable.)
- 8.4. The comfort factor is used in two ways:
  - Utilised capacity How well used is a facility? 'Utilised capacity' figures for facilities are
    often seen as being very low at 50-60%; however, this needs to be put into context with
    70-80% comfort factor levels for pools and halls. The closer utilised capacity gets to the
    comfort factor level, the busier the facilities are becoming. You should not aim to have
    facilities operating at 100% of their theoretical capacity, as this would mean that every
    session throughout the peak period would be being used to its maximum capacity. This
    would be both unrealistic in operational terms and unattractive to users.
  - Adequately meeting unmet demand the comfort factor is also used to increase the number of facilities needed to comfortably meet unmet demand. If this comfort factor is not applied, then any facilities provided will be operating at their maximum theoretical capacity, which is not desirable as noted previously.



#### 9. Utilised Capacity (Used Capacity)

- 9.1. Utilised capacity refers to how much of a facility's theoretical capacity is being used. This can, at first, appear to be unrealistically low, with area figures being in the 50-60% region. Without any further explanation, it would appear that facilities are half empty. The key point is not to see a facility's theoretical maximum capacity (100%) as being an optimum position. This, in practice, would mean that a facility would need to be completely full every hour it was open during the peak period. This would be both unrealistic from an operational perspective and undesirable from a user's perspective, as the facility would be completely full.
- 9.2. For example, a 25m, four-lane pool has a theoretical capacity of 2,260 per week, during a 52.5-hour peak period.
- 9.3. As set out in the table below, usage of a pool will vary throughout the evening, with some sessions being busier than others through programming, such as an aqua-aerobics session between 7pm and 8pm and lane swimming between 8 and 9pm. Other sessions will be quieter, such as between 9 and 10pm. This pattern of use would mean a total of 143 swims taking place. However, the pool's maximum theoretical capacity is 264 visits throughout the evening. In this instance the pool's utilised capacity for the evening would be 54%.

Visits per hour	4-5pm	5-6pm	6-7pm	7-8pm	8-9pm	9-10pm	Total visits for the evening
Theoretical maximum capacity	44	44	44	44	44	44	264
Actual usage	8	30	35	50	15	5	143

9.4. As a guide, 70% utilised capacity is used to indicate that swimming pools are becoming busy, and this is 80% for sports halls. This should be seen only as a guide to help flag when facilities are becoming busier, rather than as a 'hard threshold.'

## 10. Travel Times Catchments

- 10.1. The model uses travel times to define facility catchments in terms of driving and walking.
- 10.2. The Ordnance Survey (OS) MasterMap Highways Network Roads has been used to calculate the off-peak drive times between facilities and the population, observing any one-way and turn restrictions which apply and taking account of delays at junctions and car parking. Each street in the network is assigned a speed for car travel based on the attributes of the road, such as the width of the road, the geographical location of the road, and the density of properties along the street. These travel times have been derived through national survey work, and so are based on actual travel patterns of users. The road speeds used for inner and outer London boroughs have been further enhanced by data from the Department of Transport.



- 10.3. The walking catchment uses the OS MasterMap Highways Network Paths to calculate travel times along paths and roads, excluding motorways and trunk roads. A standard walking speed of 3 mph is used for all journeys.
- 10.4. The model includes three different modes of travel car, public transport, and walking. Car access is also considered in areas of lower access to a car, where the model reduces the number of visits made by car and increases those made on foot.
- 10.5. Overall, surveys have shown that the majority of visits made to swimming pools, sports halls and AGPs are made by car, with a significant minority of visits to pools and halls being made on foot.

Facility	Car	Walking	Public Transport
Swimming Pool	72%	18%	10%
Sports Hall	74%	17%	9%
AGP			
Combined	79%	18%	3%
Football	74%	22%	4%
Hockey	97%	2%	1%

10.6. The model includes a distance decay function, where the further a user is from a facility, the less likely they will travel. Set out below is the survey data with the percentage of visits made within each of the travel times. This shows that 90% of all visits, both by car and on foot, are made within 20 minutes. Hence, 20 minutes is often used as a rule of thumb for the catchments for swimming pools and sports halls.

Minutoo	Swimmi	ng Pools	Sport Halls		
Minutes	Car Walk		Car	Walk	
0-10	56%	53%	54%	55%	
11-20	35%	34%	36%	32%	
21-30	7%	10%	7%	10%	
31-45	2%	2%	2%	3%	

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

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

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



## Facility Inclusion Criteria

#### **Swimming Pools**

The following inclusion criteria were used for this analysis:

- Include all operational indoor swimming 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 metres in length, or the area is less than 160 square metres. If the principal pool is a leisure pool with an area less than 200 square metres, then all pools on the site should be excluded.
- 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<sup>4</sup>.

Facilities over the border in Wales and Scotland are included, as supplied by **sport**scotland and Sport Wales.

<sup>&</sup>lt;sup>4</sup> Choosing a date in the mid 1970s ensures that the facility is included, while not overestimating its impact within the run.



## Model Parameters

## **Pools Parameters**

At One Time Capacity	(	0.16667 per square metre = 1 person per 6 square meters						
Coverage Maps	۷ F	Car:20 minutesWalking:1.6 kmPublic transport:20 minutes at about half the speed of a carNOTE: Travel times are indicative, within the context of a distance decay function of the model.						
Duration	6	60 minutes						
Percentage Participation		<i>Age</i> Male Female	0-15 14.5 16.2	<i>16-24</i> 6.9 10.2	<i>25-39</i> 10.4 13.8	<i>40-59</i> 8.6 11.8	60-79 5.4 7.7	80+ 1.6 1.5
Frequency per Week		<i>Age</i> Male Female	0-15 1.09 1.10	16-24           1.03           0.96	25-39 0.86 0.82	<i>40-59</i> 1.01 1.00	60-79 1.30 1.17	80+ 1.73 1.28
Peak Period Proportion in Peak Period	Weekday:       9:00 to 10:00, 12:00 to 13:00, 15:30 to 21:00         Weekend:       08:00 to 15:30         Total:       52.5 hours         63%							