# Facilities Planning Model Assessment of Sports Hall Provision for Rother District Council

Standard Report

19 August 2022

## Disclaimer

The information in this report is presented in good faith using the information available to ORH and Sport England at the time of preparation. It is provided on the basis that the authors of the report are not liable to any person or organisation for any damage or loss which may occur in relation to taking, or not taking, action in respect of any information or advice within the document.

## Accreditations

Other than data provided by Sport England, this report also contains data from the following sources:

# EXECUTIVE SUMMARY

0.1 This report for Rother District Council (also referred to as Rother, or the District) provides an initial assessment of the current supply and demand for provision of sports halls in the District. It has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool.

0.2 The key element to be taken from this report is that the Rother demand for sports halls can be met by the accessible supply, with most demand retained within the District. Unmet demand is very low, most is demand located too far from a sports hall, not due to lack of capacity.

0.3 Overall, the sports halls are estimated to be reasonably busy, but the distribution of demand means some sports halls are much busier.

0.4 There are seven sports hall sites in the District, with three sites in Bexhill. It is an ageing stock, but the three oldest sites have been modernised.

0.5 Finally, the findings for Rother and Hasting are very similar for number of sports halls, demand, met demand, unmet demand, local share, and courts per 10,000 population.

## *Key Findings*

0.6 The key findings from the supply, demand and access assessment are:

1. The total supply of sports halls is the equivalent of 33 badminton courts, of which 27 are available for community use in the weekly peak period. The six unavailable courts represent 18% of the total supply.
2. The average year built for all the sports halls is 1999, and 1990 for the public leisure centres only.
3. Of the total demand for sports halls by Rother residents, 91% is met.
4. Of the met demand, 76% is retained within the District.
5. Of all visits to sports halls by Rother residents, 9% are predicted to be on foot and 7% by public transport.
6. Unmet demand is the equivalent of 2.3 courts. Of unmet demand:
    - 93% is because sports halls are too far away from where residents live and most of these residents do not have access to a car (80% of the total unmet demand).
    - 7% is due to lack of facility capacity.
7. Unmet demand is highest in Bexhill, but at a maximum of 0.2 of a court per square kilometre.
8. The best location to meet the most unmet demand is close to Bexhill Leisure Centre. However, at 0.6 of a court, it is an insufficient total to consider building a new sports hall to improve access for residents.

9. The overall estimated used capacity of sports halls in Rother is 59% in the weekly peak period.
10. Bexhill Leisure Centre has an estimated 100% of its capacity used at peak times.

### *Strategic Overview*

0.7 The strategic overview is that the sports hall supply is meeting demand across the District and there is capacity to meet any increase in demand. That said, the three Bexhill sites are busier centres.

0.8 There is scope to increase availability for community use in the weekly peak period by 14 hours at Bexhill Academy and 7 hours at Bexhill College Sports Centre, two of the newest sports hall sites. This would redistribute some demand because Bexhill Leisure Centre is estimated to be completely full at peak times.

0.9 There are sports halls sites in all the main settlements. Any change in location is unlikely to improve on the level of Rother's demand retained within the District.

0.10 Maintaining the high level of community use at the educational sports hall sites is important in terms of both satisfied and retained demand.

0.11 If the Council does not have community-use agreements with the educational sites, then it is recommended this is considered. In terms of the FPM findings, Robertsbridge Community College is an important site because it:

- Is the newest site, having opened in 2013.
- Has a main hall and an activity hall.
- Has a high capacity to accommodate demand.

0.12 The only alternative venue in the area is the much smaller Vinehall Academy, which is an unmodernised sports hall with the fewest hours available for community use.

0.13 The stock is ageing and there will be a need to continue modernisation. If there are proposals to replace sports halls, in either Rother or Hastings and especially in the Bexhill area, then it is recommended that the strategic planning is carried out in partnership with Hastings Borough Council.

0.14 There are benefits to both local authorities (Rother and Hastings) given the very similar findings under several assessment headings.

### *Next Steps*

0.15 Rother District Council, in reviewing the findings of this report, may wish to consider applying the evidence base to ensure that the benefits from the strategic direction being set by Sport England are realised.

0.16 It is important to reiterate that this is a one-year assessment and provides the assessment as of now. The findings should be consulted on to provide a rounded evidence base and address the findings set out.

0.17 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 sports hall sites.

0.18 Longer-term local bespoke assessments can be undertaken using Sport England's FPM. These assessments should include population projections, with options for changing the sports hall supply and assessing the collective impact this has on the future demand for sports halls and the distribution of that demand.

0.19 Such an evidence base can be applied in strategic planning and the Local Plan policy and can be used for securing inward investment.

# Contents

# 1. Introduction

1.1 This assessment uses Sport England's Facilities Planning Model (FPM) and the outputs from the National Run using Active Places data as of March 2022.

1.2 The supply assessment is based on sports halls being open and accessible for community use. If sports halls are closed temporarily because of Covid-19 or for any other reason, the local authority should inform Sport England Active Places Power via the contact us link at https://www.activeplacespower.com.

1.3 This standard run provides an initial assessment of the current supply and demand for provision of sports halls in the Rother District Council area. The assessment does not include future population growth projections but is a baseline evidence base for sports hall provision.

1.4 To help with comparative analysis, the 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 in 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 Uniting the Movement | Sport England.

### *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 sports halls for residents in future years and whether changes in supply meet future demand.

1.10 These future assessments can support the development of an evidence base in Local Plan policy, and, in combination with locally derived information and knowledge, can 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 facilities?
- Used Capacity – How full are the facilities and where are people coming from (inside and outside the local authority area)?
- 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 local 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, badminton courts per 10,000 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. Sports Halls Supply

| Supply | Rother | Ashford | Folkestone and Hythe | Hastings | Tunbridge Wells | South East Region | England |
|---|---|---|---|---|---|---|---|
| Number of halls | 9 | 13 | 7 | 8 | 16 | 1,080 | 6,004 |
| Number of hall sites | 7 | 8 | 6 | 6 | 11 | 743 | 4,120 |
| Supply in badminton court equivalents | 33.3 | 50.0 | 33.0 | 33.0 | 57.7 | 4,193.6 | 23,134.4 |
| Supply in courts scaled with hours available in peak period | 27.0 | 31.8 | 26.7 | 31.0 | 42.4 | 3,116.2 | 16,832.1 |
| Supply in visits per week in peak period | 9,943 | 11,720 | 9,840 | 11,426 | 15,594 | 1,146,753 | 6,194,224 |
| Average year built of all sites | 1999 | 1994 | 1989 | 1993 | 1995 | 1994 | 1993 |
| Average year built of public sites | 1990 | 1983 | 2013 | 1980 | 1996 | 1994 | 1991 |

**Definition of supply** – This is the supply or capacity of the sports halls available for community and club use in the weekly peak period. Supply is expressed in the number of visits that a sports hall can accommodate in the weekly peak period and in the number of badminton courts.

**Weekly peak period** – This is when the majority of visits take place and when users have most flexibility to visit. The peak period for sports halls is one hour on weekday mornings, five hours on weekday evenings and eight hours on weekend days. This gives a total of 46 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 There are nine sports halls across seven sites in Rother.

2.2 **Key finding 1** is that the total supply of sports halls is the equivalent of 33 badminton courts, of which 27 are available for community use in the weekly peak period. The six unavailable courts represent 18% of the total supply.

## *Facilities Included in Rother*

| Site | Operation | Facility Type | Dimensions (m) | Area (sqm) | Year Built | Year Refurb | Peak Hours | Total Hours | Site Capacity (visits per week in peak period) |
|---|---|---|---|---|---|---|---|---|---|
| Battle Sports Centre | Educational | 4-court<br>Activity | 33 x 18<br>18 x 17 | 594<br>306 | 1987 | 2012 | 38<br>38 | 42<br>42 | 2,427 |
| Bexhill Academy | Educational | 4-court | 35 x 20 | 690 | 2010 | | 31.5 | 35.5 | 1,008 |
| Bexhill College Sports Centre | Educational | 4-court | 35 x 20 | 690 | 2004 | | 39 | 48 | 1,248 |
| Bexhill Leisure Centre | Public | 4-court | 35 x 20 | 690 | 1990 | 2006 | 46 | 97.5 | 1,472 |
| Robertsbridge Community College | Educational | 4-court<br>Activity | 33 x 18<br>18 x 10 | 594<br>180 | 2013 | | 39<br>39 | 41<br>41 | 1,979 |
| Rye Sports Centre | Public | 4-court | 33 x 18 | 594 | 1987 | 2003 | 46 | 94.5 | 1,472 |
| Vinehall School | Educational (3rd party) | 3-court | 27 x 18 | 486 | 1999 | | 14 | 16 | 336 |

2.3 In terms of operation, there are two public leisure centres and five educational sites, of which one is managed by a Trust rather than in-house.

2.4 Battle Sports Centre:

- Is the largest sports hall site in the District, in terms of scale and capacity.
- Has a four-court hall and an extensive activity hall.
- Has a capacity of 2,427 visits in the weekly peak period.
- Can provide for multiple sports use across the two halls.

2.5 Five of the other sites have a four-court hall:

- Three are 35m x 20m: Bexhill Academy, Bexhill College Sports Centre and Bexhill Leisure Centre.
    - This is the size that Sport England and the National Governing Bodies for hall sports recommend for a four-court hall.
    - These dimensions provide a sports hall that can cater for all hall sports at the community level of participation.
    - The scale also meets the requirements for hall sports club development.
- The four-court halls at Battle Sports Centre, Robertsbridge Community College and Rye Sports Centre are 33m x 18m.
    - This size of hall can also accommodate most indoor hall sports at the community level of participation but has less space behind and between the courts.

2.6 There is a 27m x 18m three-court hall at Vinehall School.

### *Availability*

2.7 With the exception of Vinehill School, there is extensive availability for community use in the peak period at all the sites:

- Bexhill Leisure Centre and Rye Sports Centre offer the maximum 46 hours.
- Bexhill Academy offers 31.5 hours.
- Battle Sports Centre offers 38 hours.
- Bexhill College Sports Centre and Robertsbridge Community College offer 39 hours.
- Vinehall School offers only 14 hours.

### *Capacity*

2.8 The at-one-time capacity of a main hall with marked courts is eight people per badminton court. For an activity hall, this increases to 15 people per 144 sqm (the equivalent area of a badminton court). Therefore, an activity hall has almost double the capacity of a main hall with the same dimensions.

2.9 Where a sports hall site has a main hall and an activity hall, the activities for the two halls are programmed together. The main hall can accommodate big/high space activities, such as basketball and badminton, which have low participant numbers. The activity hall can accommodate smaller space activities such as martial arts, which have higher participant numbers.

2.10 There are activity halls at two of the sports hall sites, which also have the highest capacity in the weekly peak period:

- Battle Sports Centre, which has site capacity of 2,427 visits in the weekly peak period.
- Robertsbridge Community College, which has site capacity of 1,979 visits in the weekly peak period.

### *Age*

2.11 Key finding 2 is that the average year built for all the sports halls is 1999, and 1990 for the public leisure centres only. The three oldest sites have been refurbished.

2.12 Modernisation is defined as one or more of the following:

- Upgrade of the sports hall floor to a sprung timber floor.
- Upgrade of the lighting in the sports hall.
- Modernisation of the changing accommodation.

2.13 The unmodernised centres are the newest:

- Bexhill Academy, which opened in 2010.
- Bexhill College Sports Centre, which opened in 2004.

- Robertsbridge Community College, which opened in 2013.
- Vinehall School, which opened in 1999.

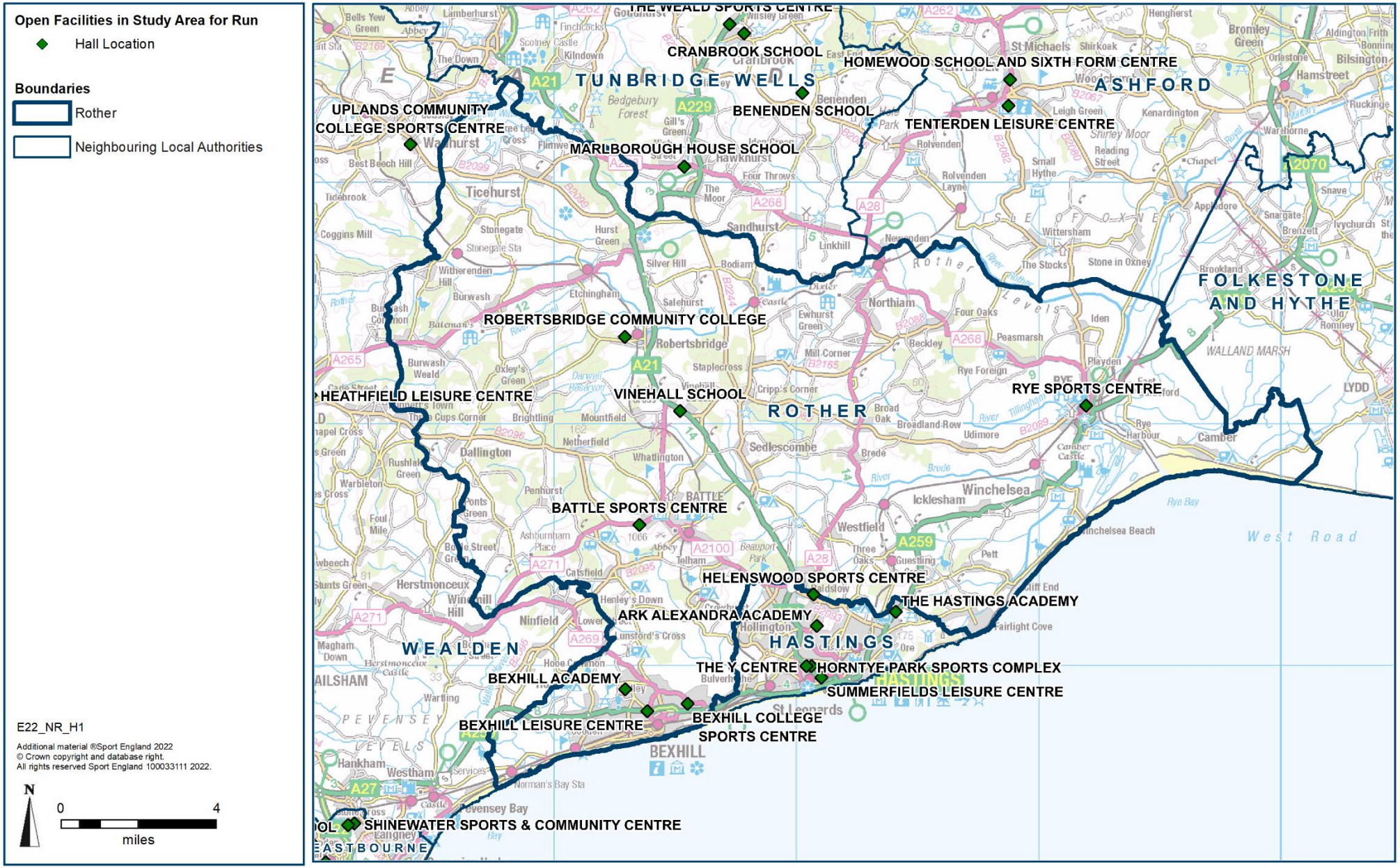
### *Location*

2.14 The sports halls are in the main settlements. There are three sites in Bexhill, and one each in Battle and Rye. There are two sports halls in the smaller settlement of Robertsbridge.

2.15 Rye Sports Centre is the only site in the east of the District (see Map 2.1).

SPORT ENGLAND

## Map 2.1: Sports Hall Locations in Rother (2022)



# 3. Demand for Sports Halls

| Demand | Rother | Ashford | Folkestone and Hythe | Hastings | Tunbridge Wells | South East Region | England |
|---|---|---|---|---|---|---|---|
| Population | 98,935 | 135,339 | 115,855 | 93,130 | 119,767 | 9,325,970 | 57,145,158 |
| Visits demanded in weekly peak period | 7,521 | 11,349 | 9,288 | 7,744 | 9,858 | 777,355 | 4,817,053 |
| Demand in courts with comfort factor included | 25.5 | 38.5 | 31.5 | 26.3 | 33.5 | 2,640.5 | 16,362.3 |
| % of demand in the 10% most deprived LSOAs nationally | 4.0% | 1.9% | 7.0% | 30.9% | 0.0% | 3.3% | 10.4% |

**Definition of total demand** – This represents the total demand for sports halls by gender and for six age bands from 0 to 79 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 badminton court equivalents. 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 In 2022, the population and demand findings for Rother are very similar to the findings for Hastings.

3.2 The findings for Rother are as follows:

- Population is 98,935.
- Demand for sports halls is 7,521 visits in the weekly peak period:
  - The equivalent of 26 badminton courts with an 80% comfort factor.
  - One fewer courts than the available supply.

3.3 The findings for Hastings are as follows:

- Population is 93,130.
- Demand for sports halls is 7,774 visits in the weekly peak period:
  - The equivalent of 26 badminton courts with an 80% comfort factor.
  - Five fewer courts than the available supply.

### *Deprivation*

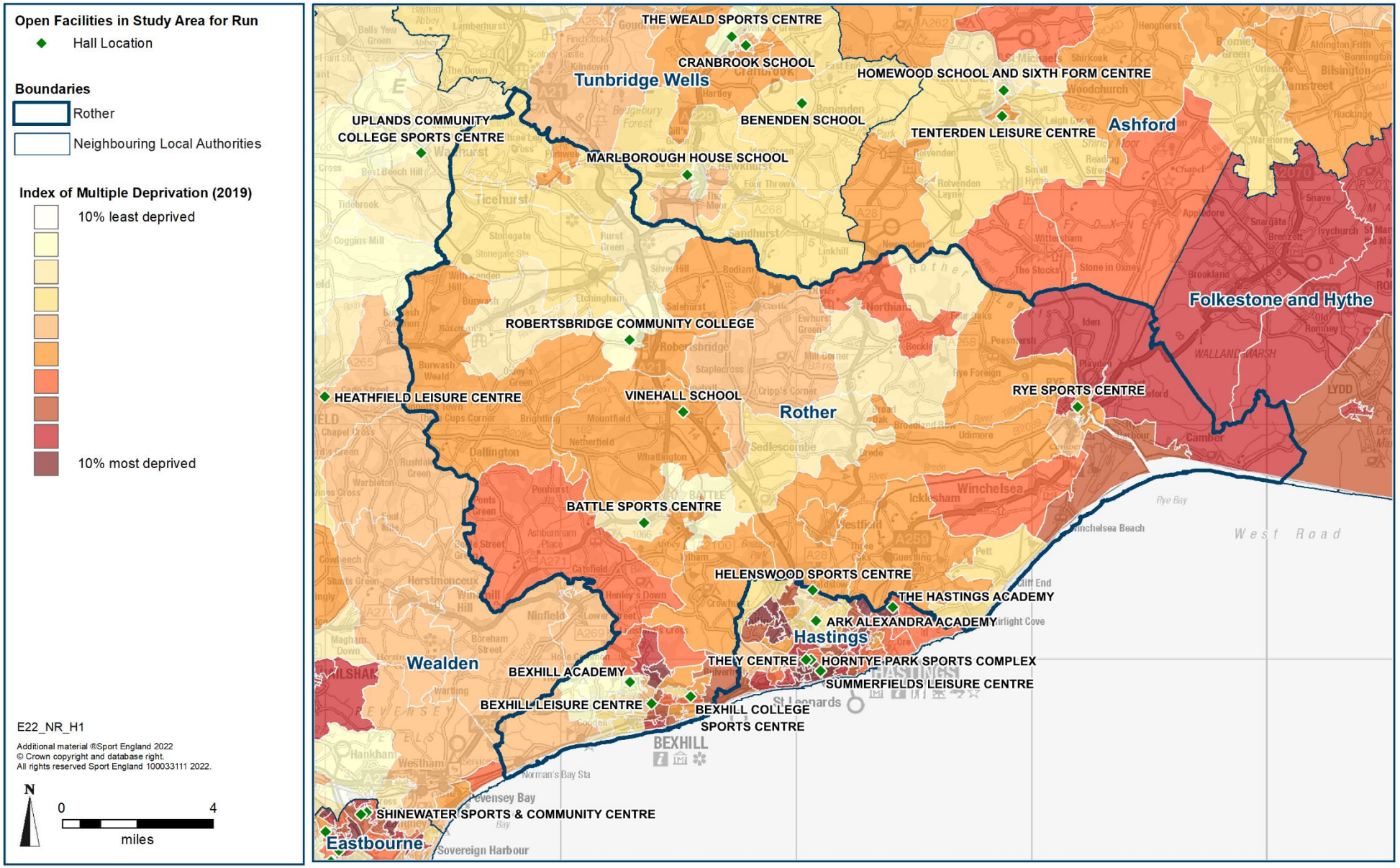
3.4 A total of 4% of Rother's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally. Overall, Rother ranks in the 50% most-deprived of all local authorities.

3.5 Deprivation is highest in areas of Bexhill. There are three sports hall sites close to these areas. Deprivation is also high in areas to the east of Rye and Rye Sports Centre is close to these areas (see Map 3.1).

3.6 The Index of Multiple Deprivation (IMD) score is used in the FPM to limit whether people will use commercial facilities (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 | South East Region | England |
|---|---|---|---|---|---|---|---|
| Number of visits met per week in peak period | 6,858 | 10,390 | 8,195 | 7,049 | 9,235 | 728,517 | 4,365,502 |
| % of total demand satisfied | 91.2% | 91.6% | 88.2% | 91.0% | 93.7% | 93.7% | 90.6% |
| Number of visits retained per week in peak period | 5,180 | 9,641 | 7,869 | 6,765 | 7,848 | 712,859 | 4,363,523 |
| Demand retained as a % of satisfied demand | 75.5% | 92.8% | 96.0% | 96.0% | 85.0% | 97.9% | 100.0% |
| Number of visits exported per week in peak period | 1,677 | 749 | 326 | 284 | 1,388 | 15,657 | 1,979 |
| Demand exported as a % of satisfied demand | 24.5% | 7.2% | 4.0% | 4.0% | 15.0% | 2.1% | 0.0% |

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

4.1 **Key finding 3** is that, of the total demand for sports halls by Rother residents, 91% is met. This is the same as the finding for Hastings and the England average. The regional average is higher, with 94% of sports hall demand being met.

### *Retained Demand*

4.2 A subset of the satisfied demand findings shows how much of Rother residents' demand for sports halls is retained at sports halls located within the District. This assessment is based on the catchment area of Rother sports halls and residents in the District choosing to participate at these halls and is known as retained demand.

4.3 **Key finding 4** is that, of the met demand, 76% is retained within the District. The sports halls are in the right places for most residents, are attractive and have suitable capacity.

4.4 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 halls residents chose to use, such as other facilities being on the same site, for example, a gym or studio, ease of parking, or a sports hall programme that provides activities at times when residents wish to participate.

### *Exported Demand*

4.5 The residue of satisfied demand, after retained demand, is exported demand. This is based on the catchment areas of sports halls outside the District and residents of Rother using them.

4.6 In 2022, 25% of Rother's satisfied demand for sports halls is met at a sports hall outside the District.

4.7 The data from the National FPM Run does not identify how much of Rother's demand goes to which other local authority area or sports hall, but only provides the total figure for exported demand.

4.8 However, there are three sports hall sites close to the Rother boundary: two in Hastings and one in Wealden (see Map 2.1). The destination of exported demand could be identified in a bespoke FPM run.

### *Travel Patterns*

| Accessibility | Rother | Ashford | Folkestone and Hythe | Hastings | Tunbridge Wells | South East Region | England |
|---|---|---|---|---|---|---|---|
| % of population without access to a car | 17.8% | 15.3% | 22.1% | 30.8% | 16.3% | 17.6% | 24.9% |
| % of total population within a 20-minute walk of a hall | 43.3% | 40.3% | 35.1% | 47.4% | 40.2% | 52.2% | 57.1% |
| % of 10% most deprived population within a 20-minute walk from a hall | 2.8% | 1.7% | 3.2% | 15.8% | 0.0% | 2.2% | 7.1% |
| % of demand satisfied when travelled: | | | | | | | |
| by car | 84.3% | 86.3% | 82.2% | 71.2% | 83.9% | 80.6% | 75.3% |
| on foot | 8.7% | 7.7% | 8.5% | 12.9% | 8.3% | 11.5% | 13.5% |
| by public transport | 7.0% | 6.1% | 9.3% | 15.9% | 7.8% | 7.8% | 11.3% |

**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 journeys to a sports hall.

4.9 The percentage of the population without access to a car influences travel patterns to sports halls. A low percentage means that there is likely to be a larger number of journeys to sports halls by car.

4.10 For residents without access to a car, travel to sports halls by public transport and on foot becomes the choice of travel mode.

4.11 **Key finding 5** is that, of all visits to sports halls by Rother residents, 9% are predicted to be on foot and 7% are predicted to be by public transport.

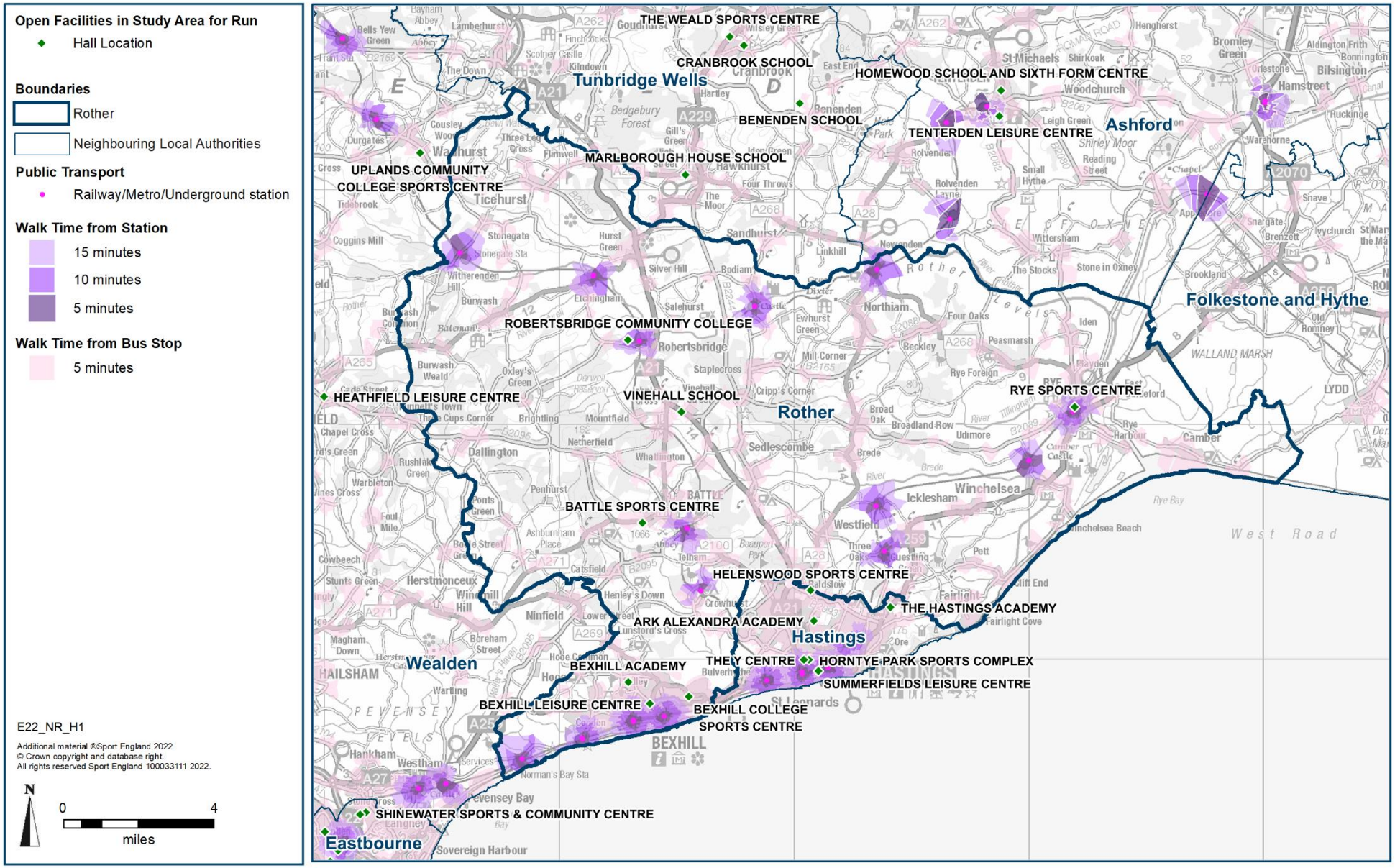
4.12 There is a very limited bus service in Rother, as shown by the small area within a five-minute walk of a bus stop (areas in pink in Map **4.1**). However, all the sports hall sites, apart from Vinehall School, are within a 5-minute walk of a bus stop.

4.13 Bexhill Leisure Centre, Robertsbridge Community College and Rye Sports Centre are within a 15-minute walk of a railway station (purple areas). Opportunities to travel to sports halls by bus are greater than opportunities to travel by rail.

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 sports hall 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 | South East Region | England |
|---|---|---|---|---|---|---|---|
| Number of visits unmet per week in peak period | 663 | 959 | 1,093 | 695 | 623 | 48,838 | 451,551 |
| Unmet demand as a % of total demand | 8.8% | 8.4% | 11.8% | 9.0% | 6.3% | 6.3% | 9.4% |
| Equivalent in courts with comfort factor included | 2.3 | 3.3 | 3.7 | 2.4 | 2.1 | 165.9 | 1,533.8 |
| % of unmet demand due to: | | | | | | | |
| Facility too far away: | 93.1% | 79.2% | 84.7% | 97.3% | 90.9% | 91.7% | 77.3% |
| Without access to a car | 80.0% | 65.3% | 75.4% | 95.2% | 83.9% | 83.1% | 69.5% |
| With access to a car | 13.1% | 13.9% | 9.3% | 2.1% | 6.9% | 8.5% | 7.7% |
| Lack of facility capacity: | 6.9% | 20.8% | 15.3% | 2.7% | 9.1% | 8.3% | 22.7% |
| Without access to a car | 5.1% | 15.4% | 7.9% | 2.6% | 8.1% | 6.6% | 20.3% |
| With access to a car | 1.8% | 5.4% | 7.4% | 0.1% | 1.1% | 1.8% | 2.5% |
| % of 10% most deprived demand unmet | 0.4% | 0.3% | 1.0% | 3.9% | 0.0% | 0.4% | 1.4% |

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

1. There is too much demand for any particular sports hall within its catchment area and there is a lack of capacity; or
2. The demand is located too far away from any sports hall and is then classified as unmet demand.

5.1 In 2022, 9% of the demand from Rother residents is not met. This is 663 visits in the weekly peak period.

5.2 **Key finding 6** is that unmet demand is the equivalent of 2.3 courts. This is very similar to unmet demand in Hastings, at 2.4 courts. Of Rother's unmet demand:

- 93% is because sports halls are too far away from where residents live and most of these residents do not have access to a car (80% of the total unmet demand).
- 7% is due to lack of facility capacity.

5.3 Demand located too far away from a sports hall will always exist because it is not possible to achieve complete spatial coverage whereby all areas of a local authority are within walking distance of a sports hall and not everyone will want to drive the full distance.

5.4 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 sports hall provision should be considered in order to improve accessibility for residents.

### *Geographical Distribution*

5.5 Key finding 7 is that unmet demand is highest in Bexhill, but at a maximum of 0.2 of a court per square kilometre. There is unmet demand of 0.1 of a court per square kilometre in several areas of Bexhill, and in Battle, Camber, Northiam and Rye (see Map 5.1).

### *Meeting Unmet Demand*

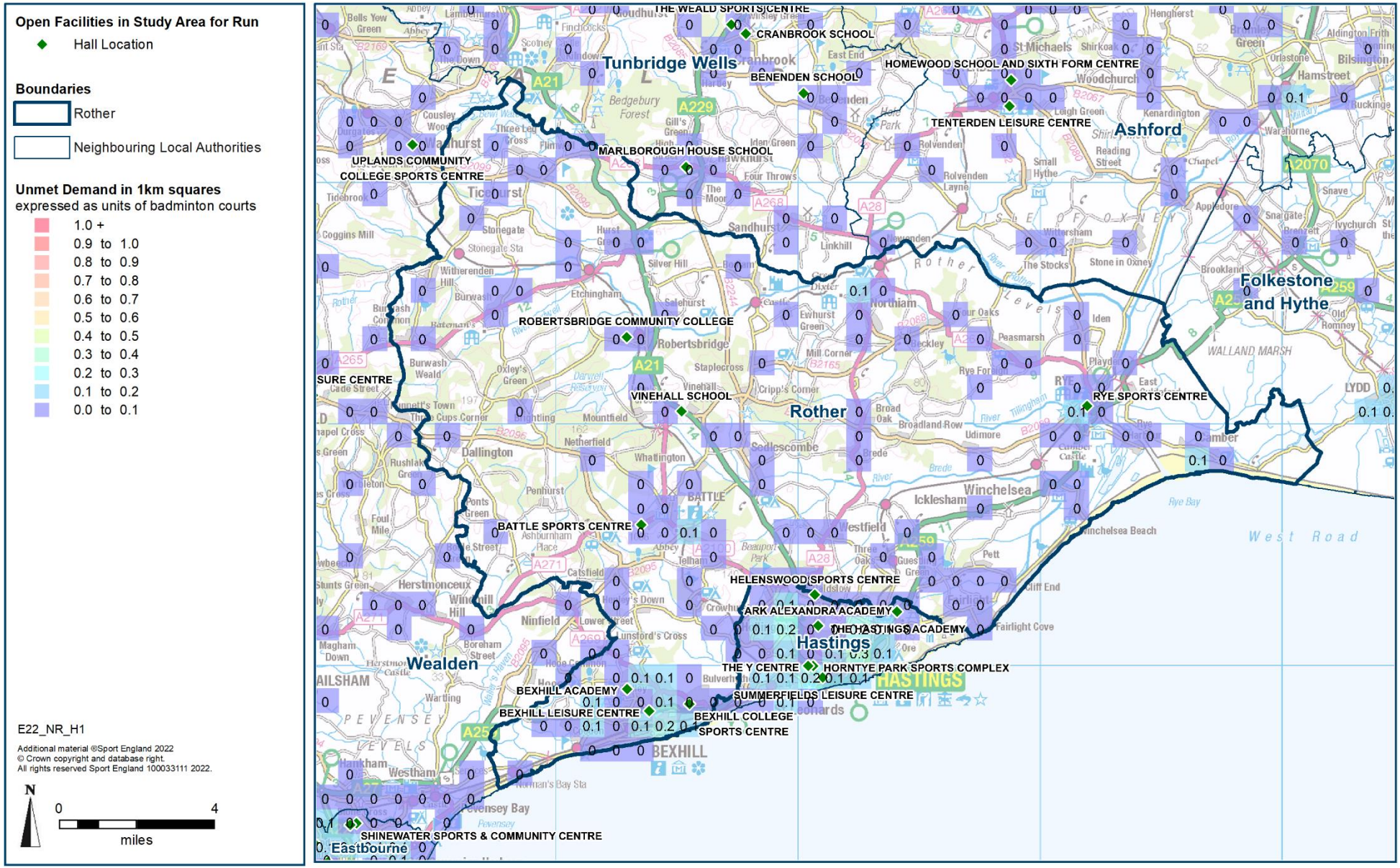
5.6 Analysis of the spread of unmet demand shows the level of unmet demand that would be met by a potential new facility in any given location. This 'reachable unmet demand' is calculated for each one-kilometre grid square (figures shown in Map 5.2).

5.7 Key finding 8 is that the best location to meet the most unmet demand is close to Bexhill Leisure Centre. However, at 0.6 of a court, it is an insufficient total to consider building a new sports hall to improve access for residents.

*For context, the minimum number of reachable courts required to justify a new sports hall is three.*

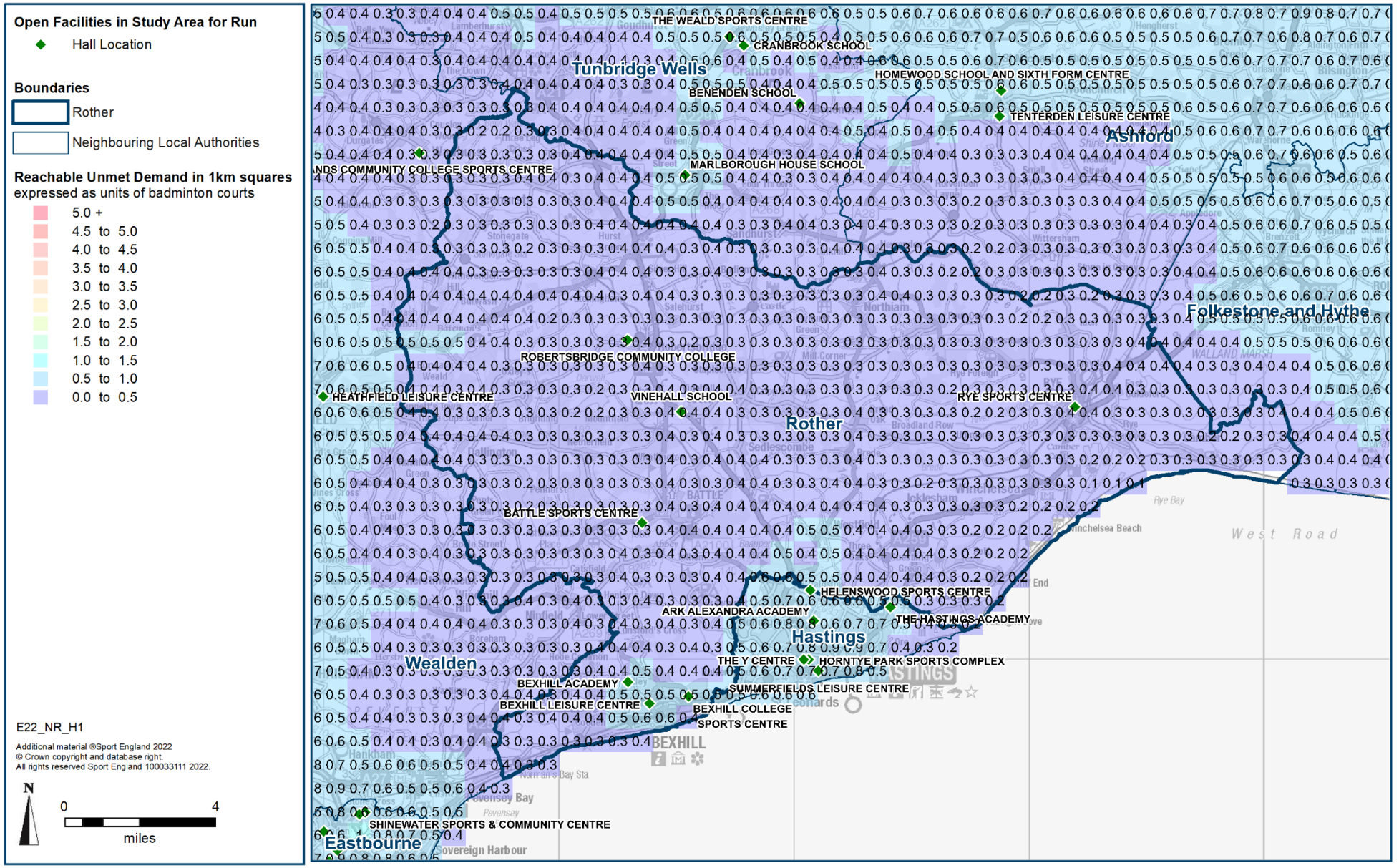
## Map 5.1: Unmet Demand for Sport Halls in Rother (2022)

FPM unmet demand aggregated at 1km square grid expressed as badminton courts and shown thematically (colours).



## Map 5.2: Reachable Unmet Demand for Sports Halls in Rother (2022)

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



# 6. Used Capacity

How well used are the facilities?

| Used Capacity | Rother | Ashford | Folkestone and Hythe | Hastings | Tunbridge Wells | South East Region | England |
|---|---|---|---|---|---|---|---|
| Total number of visits used of capacity | 5,840 | 10,018 | 8,359 | 7,908 | 9,572 | 736,126 | 4,372,019 |
| % of overall capacity of halls used | 58.7% | 85.5% | 84.9% | 69.2% | 61.4% | 64.2% | 70.6% |

**Definition of used capacity** – This is a measure of usage at sports halls 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. When the venues are too full, the time taken to change the sports hall programme and equipment starts to impinge on the activity time itself and the changing and circulation areas become congested. In the model, Sport England assumes that usage over 80% of capacity is busy and that the sports hall is operating at an uncomfortable level above that percentage.

6.1 **Key finding 9** is that the overall estimated used capacity of sports halls in Rother is 59% in the weekly peak period. The regional average is 64% and the England-wide average is 71%.

### *Used Capacity of Individual Sites*

| Site | Operation | Year Built | Year Refurb | Weight Factor | Peak Hours | Total Hours | Site Capacity (visits per week in peak period) | % of Capacity Used |
|---|---|---|---|---|---|---|---|---|
| Battle Sports Centre | Educational | 1987 | 2012 | 43% | 38 | 42 | 2,427 | 31% |
| Bexhill Academy | Educational | 2010 | | 47% | 31.5 | 35.5 | 1,008 | 68% |
| Bexhill College Sports Centre | Educational | 2004 | | 45% | 39 | 48 | 1,248 | 94% |
| Bexhill Leisure Centre | Public | 1990 | 2006 | 71% | 46 | 97.5 | 1,472 | 100% |
| Robertsbridge Community College | Educational | 2013 | | 48% | 39 | 41 | 1,979 | 30% |
| Rye Sports Centre | Public | 1987 | 2003 | 63% | 46 | 94.5 | 1,472 | 62% |
| Vinehall School | Edu. (3rd party) | 1999 | | 81% | 14 | 16 | 336 | 71% |

6.2 Variation in the estimated used capacity of individual sites is primarily caused by the interaction of the following factors (more detail is provided in the subsequent paragraphs):

- Type of site operator (public/educational).
- The hours available for community use.
- The level of demand within the travel-time limit from the site and reachable from other halls.
- The age of the sports hall and its 'attractiveness' weighting.
- Imported demand.

### *Type of Site Operator and Hours Available*

6.3 Public leisure centres have higher used capacity because of their 'draw effect', as follows. Public leisure centres:

- Are accessible for public use and sports club use.
- Are available for daytime use, which is not possible at educational venues during term time.
- Actively promote hall sports and physical activity participation, with a programme of use that reflects a range of activities and times when customers wish to participate.

6.4 Key finding 10 is that Bexhill Leisure Centre has an estimated 100% of its capacity used at peak times and is available for community use for the maximum 46 hours in the weekly peak period. The Sport England measure of a sports hall being comfortably full is 80% of capacity used at peak times.

6.5 Rye Sports Centre has an estimated used capacity of 62% in the weekly peak period and is also available for 46 hours.

6.6 Access to sports halls for community use will be determined by the policy of each educational provider. Some schools and colleges actively promote community use. At some colleges and higher education venues there is little differentiation between student and wider community use, with community access based on a membership system. Other educational venues, notably secondary schools, let out the sports halls to sports clubs or community groups on a termly basis, or for shorter periods.

6.7 Educational venues will provide for use by sports clubs or community groups but usually do not offer recreational pay and play.

6.8 There is a strong commitment to community use at all but one of the educational sites. Three sites provide either 38 or 39 hours in the peak period, Bexhill Academy has 31.5 hours available, but Vinehall School provides only 14 hours (see Sports Hall Supply section).

6.9 The estimated used capacity for the educational venues ranges from 30% in the weekly peak period at Robertsbridge Community College to 94% at Bexhill College Sports Centre.

### *Location*

6.10 For sports halls 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.

6.11 There are three sports hall sites in close proximity to each other in Bexhill. While demand is shared, their used capacity is very high. This is because demand for sports halls is highest in this part of the District.

6.12 This contrasts with the centres in Battle and Rye, which have only one site and, therefore, no competition. However, demand for sports halls is lower in these areas and they have lower used capacity.

### *Attractiveness*

6.13 Customers take the quality and range of the offer into consideration when choosing a venue. These features are of increasing importance to customers and affect participation levels. Desirable features include a modern sports hall with a sprung timber floor, good quality lighting, modern changing rooms, and other facilities on site such as a studio and/or a gym. Residents may travel further to use a sports hall with this all-round offer rather than participate at the sports hall located closest to where they live.

6.14 To assess their comparative attractiveness to customers, all the sports hall sites in the model are weighted to reflect their age, condition and whether they have been modernised.

### *Site Variation*

6.15 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*

| Imported Demand | Rother | Ashford | Folkestone and Hythe | Hastings | Tunbridge Wells | South East Region | England |
|---|---|---|---|---|---|---|---|
| Number of visits imported per week in peak period | 660 | 377 | 490 | 1,143 | 1,724 | 23,267 | 8,496 |
| Demand imported as a % of used capacity | 11.3% | 3.8% | 5.9% | 14.5% | 18.0% | 3.2% | 0.2% |
| Difference between visits imported and exported | -1,018 | -372 | 164 | 859 | 336 | 7,609 | 6,517 |

6.16 Imported demand is set out under Used Capacity. If residents of neighbouring local authorities participate at a site in Rother, their usage becomes part of the used capacity of Rother's sports halls.

6.17 Imported demand is 660 visits in the weekly peak period. This represents 11% of the used capacity of the Rother sports halls.

### *Import/Export Balance*

6.18 Rother is a net exporter of demand for sports halls, with 1,018 more visits exported than imported in the weekly peak period.

# 7. Local Share of Facilities

## Equity share of facilities

| Local Share | Rother | Ashford | Folkestone and Hythe | Hastings | Tunbridge Wells | South East Region | England |
|---|---|---|---|---|---|---|---|
| Local share: <1 supply less than demand, >1 supply greater than demand | 0.83 | 0.49 | 0.55 | 0.79 | 0.82 | 0.81 | 0.70 |
| Courts per 10,000 population | 3.4 | 3.7 | 2.8 | 3.5 | 4.8 | 4.5 | 4.0 |

**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 sports halls 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 local authority where the share of sports halls is better and worse. The intervention is to try and increase access for residents in the areas with the poorest access to sports halls.

7.3 Rother has a District-wide local share of 0.83. Therefore, demand in the District cannot access sufficient quality supply (see Map.**7.1**).

7.4 Local share in Hastings, at 0.79, is similar to that in Rother. Local share is below 1 for all the other neighbouring local authority areas, as is the regional average, at 0.81, and the England-wide average, at 0.70.

7.5 Local share is best in Robertsbridge, at 1.7 and 1.6 (turquoise squares). Therefore, enough supply can be accessed by the demand. Local share is poorest in Bexhill, at 0.5 (pink squares).

### *Comparative Measure of Provision*

7.6 A comparative measure of sports hall provision is badminton court equivalents per 10,000 population. For context, the regional average is 4.5 courts and the England-wide average is 4.0 courts. Findings for the study area are as follows:

- Rother: 3.4 courts.

- Hastings: 3.5 courts.  Similar to provision in Rother.
- Tunbridge Wells: 4.4 courts.  The highest provision in the study area.
- Folkestone and Hythe: 2.8 courts.  The lowest provision in the study area.

7.7 The findings on badminton courts per 10,000 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.

7.8 The supply and demand assessment for sports halls in the District is based on the findings from the previous five headings analysed in this report.

# Map 7.1: Local Share of Sports Halls in Rother (2022)

FPM share of courts 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 | Reason for Exclusion |
|---|---|---|
| Bexhill College Sports Hall (Closed) | Main | Closed |
| Bexhill Youth and Community Centre | Activity | Too Small. No main hall on site. |
| Buckswood School | Main | Private Use |
| Christchurch Methodist Church | Activity | Status not known |
| Christchurch Methodist Church | Activity | Status not known |
| Claremont Preparatory and Nursery School | Main | Private Use |
| Claremont School (Senior) | Main | Private Use |
| Cooden Beach Sports and Social Club | Activity | Status not known |
| Etchingham Church of England Primary School | Activity | Too Small. No main hall on site. |
| St John Ambulance Headquarters (Closed) | Activity | Closed |
| St Mary's School | Activity | Private Use |
| St Richard's Catholic College | Main | Private Use |
| St Richard's Catholic College | Activity | Private Use |
| St Richard's Catholic College | Activity | Private Use |
| St Thomas' Church of England Aided Primary School | Activity | Private Use |
| The Pretious Sports Hall Northiam | Activity | Too Small. No main hall on site. |
| Westfield Community Hall | Activity | Too Small. No main hall on site. |

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

Included within this Appendix are the following:

- Model Description
- Facility Inclusion Criteria
- Model Parameters

## *Model Description*

### 1. Background

1.1. The Facilities Planning Model (FPM) is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with sportscotland and Sport England since the 1980s.

1.2. The model is a tool 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 separate 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[1]. 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)[2].

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.

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[1] 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.

[2] 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[3] 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 District, 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

[3] 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 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'.

- 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$^2$, 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 not 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 Districts 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.

| Minutes | Swimming Pools | | Sport Halls | |
|---|---|---|---|---|
| | 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.

| Minutes | Artificial Grass Pitches | | | | | |
|---|---|---|---|---|---|---|
| | 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*

### Sports Halls

The following inclusion criteria were used for this analysis.

- Include all operational sports halls available for community use i.e. pay and play, membership, sports club/community association.
- Exclude all halls not available for community use i.e. private use.
- Exclude all halls where the main hall is less than 3 courts in size.
- 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[4].

Facilities over the border in Wales and Scotland included, as supplied by sportscotland and Sport Wales.

[4] Choosing a date in the mid '70s ensures that the facility is included, whilst not overestimating its impact within the run.

## *Model Parameters*

### Halls Parameters

<table>
<tr><td>At One Time Capacity</td><td>32 users per 4-court hall<br>15 users per 144 square meters of activity hall</td></tr>
<tr><td>Coverage Maps</td><td>Car: 20 minutes<br>Walking: 1.6 km<br>Public transport: 20 minutes at about half the speed of a car<br><br>NOTE: Travel times are indicative, within the context of a distance decay function of the model.</td></tr>
<tr><td>Duration</td><td>60 minutes</td></tr>
<tr><td>Percentage Participation<br><br>Frequency per Week</td><td>
<table>
<tr><th>Age</th><th>0-15</th><th>16-24</th><th>25-34</th><th>35-44</th><th>45-59</th><th>60-79</th></tr>
<tr><td>Male</td><td>20.4</td><td>16.7</td><td>13.9</td><td>11.6</td><td>10.2</td><td>7.3</td></tr>
<tr><td>Female</td><td>24.5</td><td>17.8</td><td>17.1</td><td>15.3</td><td>15.1</td><td>12.1</td></tr>
</table>
<table>
<tr><th>Age</th><th>0-15</th><th>16-24</th><th>25-34</th><th>35-44</th><th>45-59</th><th>60-79</th></tr>
<tr><td>Male</td><td>0.65</td><td>0.95</td><td>0.93</td><td>0.84</td><td>1.00</td><td>1.14</td></tr>
<tr><td>Female</td><td>0.74</td><td>1.20</td><td>1.21</td><td>1.07</td><td>1.18</td><td>1.01</td></tr>
</table>
</td></tr>
<tr><td>Peak Period<br><br>Proportion in Peak Period</td><td>Weekday: 9:00 to 10:00, 17:00 to 22:00<br>Weekend: 08:00 to 16:00<br>Total: 46 hours<br><br>62%</td></tr>
</table>