



**Facilities Planning Model Assessment of  
Sports Halls Provision for  
East Hampshire District Council**

**Standard Report**

**5 December 2023**

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## EXECUTIVE SUMMARY

- 0.1 This report for East Hampshire District Council (also referred to as East Hampshire or the District) provides an initial assessment of the current supply and demand for provision of sports halls in East Hampshire in 2023. 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 overall residents can access a high level of supply, but East Hampshire is very reliant on the educational sector for its provision of sports halls.

### *Key Findings*

- 0.3 The key findings from the supply, demand and access assessment are as follows:
1. The total sports hall space in East Hampshire included in the FPM is the equivalent of 67.0 badminton courts. When scaled to the amount of time that courts are available during the weekly peak period, this reduces to 46.9 courts.
  2. The educational sites provide 79% of the available capacity in the District in the weekly peak period.
  3. The resident population generates demand for 10,057 visits in the weekly peak period, which equates to 34.2 courts with a comfort factor included.
  4. Of the demand for sports halls from East Hampshire residents, 96% is met.
  5. Of East Hampshire's satisfied demand, 77% is met at sports halls within the District.
  6. Of East Hampshire's residents, 44% are within a 20-minute walk of a sports hall.
  7. Unmet demand totals 1.5 courts. Nearly all the unmet demand (98%) is from residents who are too far from a sports hall and is not due to lack of capacity (2%).
  8. The overall estimated used capacity of sports halls in East Hampshire during the weekly peak period is 49%. However, there is wide variation in the used capacity of the individual sports hall sites, ranging from 26% at Amery Hill School, to 100% at Horndean Technology College.
  9. East Hampshire exports 1,131 more visits than it imports in the weekly peak period.
  10. The geographical distribution of local share varies across East Hampshire, from very poor in the south of the District to very good in the northwest.

### *Strategic Overview*

- 0.4 East Hampshire has a good range of sports halls spread across the District, with several larger halls and activity halls offering a broad variety of activities. The available supply of sports halls for community use is greater than the demand.
- 0.5 There has been a good record of investment in new facilities and modernisation of the older sites. However, the age of some sites will make them less attractive in the future and costly to maintain, for example, Taro Leisure Centre sports hall is over 30 years old.

- 0.6 The educational sector is the main provider of sports halls. This means that there are only the two public leisure centre sports halls and one educational site open during off-peak times. Continuing community use is dependent on each educational establishment's policy towards making their sports halls available, and the over-reliance on educational sector facilities is a concern.
- 0.7 Horndean Technology College is the only site estimated to be uncomfortably full at peak times. It is close to the border with Havant where demand for sports halls is highest. Clanfield Centre, which is north of Horndean Technology College, is excluded from this assessment due to missing information at the time of the national run. Clanfield Centre's additional capacity would improve the findings for the area, but it will be important to maintain at least the current level of community access to Horndean Technology College to meet the demand.
- 0.8 It will also be important to maintain community access to Oakmoor School and Bohunt School because they are the only sports halls in Bordon and Liphook respectively, and have the largest capacities in the District. Oakmoor School is also the site closest to the area of highest deprivation in the East Hampshire.
- 0.9 Almost a quarter of East Hampshire's satisfied demand is met at sports halls in the neighbouring local authority areas. Therefore, if there are any changes to provision in these areas in the future, East Hampshire's residents will be affected.

### ***Next Steps***

- 0.10 East Hampshire District Council, in reviewing the findings of this report, may also wish to consider applying the evidence base to ensure that the benefits from the strategic direction being set by Sport England are realised.
- 0.11 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.
- 0.12 Given the strategic overview, the following will be significant:
- Community use agreements for educational sports halls
  - A projected large population growth in East Hampshire in the future, particularly in one area or on the District boundaries
  - Known committed changes in the current available supply of sports halls, including in the neighbouring local authority areas close to East Hampshire
- 0.13 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.
- 0.14 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 2023.
- 1.2 The supply assessment is based on sports halls being open and accessible for community use. If sports halls are closed temporarily for any 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 the provision of sports halls in the East Hampshire District Council area (also referred to as East Hampshire or the District). 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, 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 [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 – closures/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 findings can be applied as an evidence base in Local Plan policy, and the future assessments can also 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 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 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 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 East Hampshire, for example, the proportion of satisfied demand.
- 1.14 Maps to support the findings on facility locations, demand, deprivation, walking 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	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
Number of halls	18	19	12	14	18	22	16	1,083	6,002
Number of hall sites	11	13	9	9	11	15	12	743	4,110
Supply in badminton court equivalents	67.0	68.4	48.7	54.2	59.1	90.3	61.8	4,196.0	23,153.1
Supply in courts scaled with hours available in peak period	46.9	51.4	35.5	41.0	40.8	52.6	51.4	3,109.3	16,810.7
Supply in visits per week in peak period	17,264	18,913	13,066	15,078	15,029	19,362	18,934	1,144,218	6,186,355
Average year built all sites	1992	1987	1989	1995	1978	1986	1992	1993	1992
Average year built public sites	2006	-	2001	2017	1983	1981	2010	1993	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 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 hours for sports halls (see Appendix 2) total 46 per week. The modelling and recommendations are based on the ability of the public to access facilities during this weekly peak period.

*Sports Halls Included in East Hampshire (2023)*

Site	Operation	Year Built	Year Refurb	Facility Type	Dimensions (m)	Hall Area (sqm)	Weekly Peak Hours	Total Hours Open	Site Capacity (visits per week in peak period)
Alton Sports Centre	Public	2020		6-court	34 x 27	918	46	103.5	2,208
Amery Hill School	Educational (in-house)	1984	2009	3-court	29.4 x 18	529	28.5	29.5	1,180
				Activity	18.3 x 9.1	167	28.5	29.5	
Bedales School	Educational (in-house)	1984	2010	6-court	37 x 27	999	36.5	44.5	1,752
Bohunt School	Educational (in-house)	1979	2012	4-court	34.5 x 20	690	44	87.5	2,889
				Activity	18 x 10	180	44	87.5	
				Activity	18 x 10	180	35	43	
Churcher's College	Educational (in-house)	1992		5-court	40.6 x 21.4	867	29	39	1,704
				Activity	18 x 10	180	29	39	
Eggars School	Educational (in-house)	2006		4-court	33 x 18	594	20	20	1,140
				Activity	24 x 10	240	20	20	
Horndean Technology College	Educational (3rd party)	1976	2017	4-court	33 x 18	594	34	42	1,088
HSDC Alton	Educational (in-house)	2002		4-court	33 x 18	594	25	25	800
Oakmoor School	Educational (in-house)	2018		6-court	34 x 27	918	34	44	2,270
				Activity	18 x 10	180	34	44	
Petersfield School	Educational (in-house)	1965	2010	4-court	34.5 x 20	690	15	15	761
				Activity	18 x 10	180	15	15	
Taro Leisure Centre	Public	1992	2002 (excludes sports hall)	4-court	33 x 18	594	46	102.5	1,472

### *Sports Halls Supply*

- 2.1 There are 18 sports halls across 11 sites in East Hampshire that are available for community use. Two of the sites are public leisure centres, and nine are educational providers.
- 2.2 Clanfield Centre was not included in the FPM national run due to lack of information. However, this community site has a sports hall with three marked courts and a studio. Courts are available to hire and the centre offers some regular activities during the weekly peak period. The other facilities excluded from the study are listed in Appendix 1.
- 2.3 **Key finding 1** is that the total sports hall space in the District included in the FPM is the equivalent of 67.0 badminton courts. When scaled to the amount of time that courts are available during the weekly peak period, this reduces to 46.9 courts.
- 2.4 Of the court space in East Hampshire, 30% is unavailable for community use in the weekly peak period, which equates to 20.1 badminton courts.
- 2.5 The sports halls can accommodate a total of 17,264 visits per week in the peak period.

### *Public Leisure Centres (pay-and-play access)*

- 2.6 The public leisure centres are operated by Everyone Active on behalf of East Hampshire District Council. The halls are available to all residents across extensive opening hours and provide recreational pay-and-play as well as organised team and individual sports.
- 2.7 Alton Sports Centre has a six-court hall with dimensions of 34m x 27m. This size of hall enables flexible use and can accommodate two or more activities at the same time.
- 2.8 Taro Leisure Centre has a four-court hall with dimensions of 33m x 18m. This size of hall can accommodate sports at the community level of participation, but with less space between and behind courts.
- 2.9 Both sports halls are available for the full weekly peak period of 46 hours. Together they provide 21% of the available capacity in East Hampshire in the weekly peak period.
- 2.10 Alton Sports Centre has the third largest site capacity in the District in the weekly peak period, at 2,208 visits.

### *Educational Providers (sports club/community association use)*

- 2.11 Horndean Technology College is the only educational site that is run by a third party. The other sites are managed in-house.
- 2.12 The educational sector provides:
- Two six-court halls
  - One five-court hall

- Two four-court halls with dimensions of 34.5m x 20m, which is the size recommended by Sport England and the Governing Bodies for hall sports for a four-court hall; this scale of hall caters for all sports at the community level of participation and for club sport development
- Three four-court halls with dimensions of 33m x 18m
- One three-court hall

- 2.13 Five of the educational sites also have an activity hall, and Bohunt School has two activity halls.
- 2.14 Where a sports hall site has a main hall and an activity hall, 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.
- 2.15 The at-one-time capacity of a main hall with marked courts is eight people per badminton court (equivalent area of a badminton court is 144 sqm). For an activity hall, this increases to 15 people per court. Therefore, an activity hall has almost double the capacity of a main hall with the same dimensions.
- 2.16 The educational sports halls are available for community use for between 15 hours and 44 hours in the weekly peak period. All East Hampshire's 'spare capacity' of 20.1 courts is at these sites. This is due to their limited opening times during peak periods.
- 2.17 As to be expected at school sites, there is also limited off-peak availability due to these sports halls being utilised by the schools during the day.
- 2.18 **Key finding 2** is that the educational sites provide 79% of the available capacity in East Hampshire in the weekly peak period.
- 2.19 Bohunt School has the largest capacity in the District in the weekly peak period, at 2,889 visits. Its four-court hall, and one of its activity halls, are available for 44 hours in the weekly peak period. Its other activity hall is available for 35 hours in the weekly peak period.
- 2.20 Oakmoor School has the second largest capacity, at 2,270 visits. It has a six-court hall and an activity hall that are available for 34 hours.
- 2.21 Petersfield School has the smallest capacity, at 761 visits. Its four-court hall and activity hall are only available for 15 hours.
- 2.22 HSDC Alton has the second smallest capacity, at 800 visits. Its four-court hall is available for 25 hours.

### *Age*

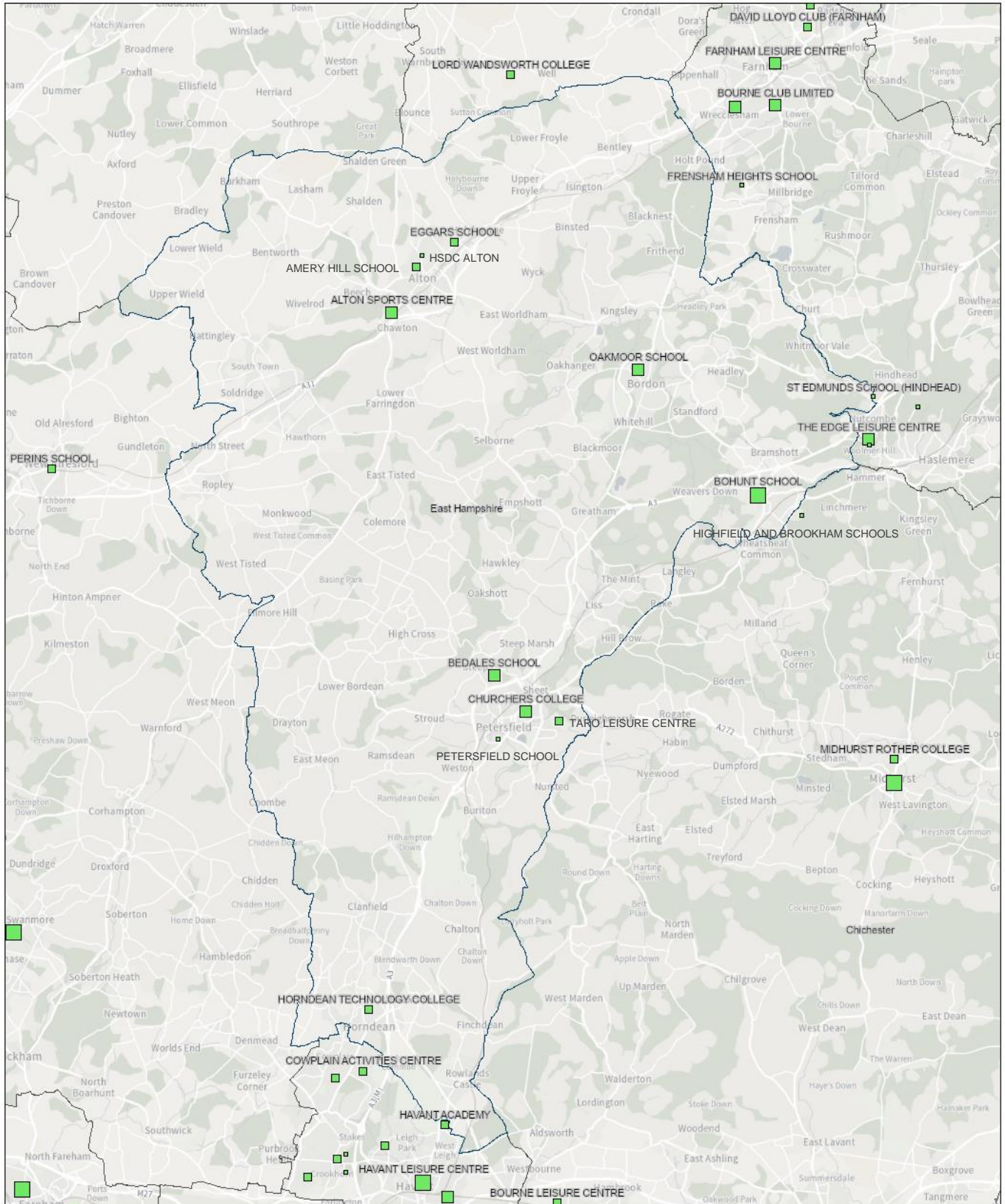
- 2.23 The average build year of the sports halls in East Hampshire is 1992. This is similar to the regional and national averages. However, the five facilities built before 1990 have undergone refurbishment in the last 15 years.
- 2.24 Taro Leisure Centre is the oldest public sports hall and is over 30 years old. The dry side of the building was refurbished in 2002 but this did not include the sports hall, which is original to the 1992 build.
- 2.25 Alton Sports Centre is the most recent sports hall to open in 2020.
- 2.26 Horndean Technology College is the most recent sports hall to be modernised in 2017. 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
- 2.27 These refurbishments increase the attractiveness of sports halls to users. There are also minor works, such as redecoration or replacing line markings, that do not alter the attractiveness of the halls.

### *Locations*

- 2.28 Four of the sports hall sites are clustered around Alton and four are around Petersfield (see Map 2.1). There is one site in Bordon, one in Liphook and one in Horndean.
- 2.29 There are sports halls in the neighbouring local authorities close to East Hampshire's borders.

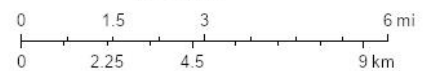
## Map 2.1: Sports Halls Locations in East Hampshire (2023)

The size of the green square is representative of the capacity of the sports hall site.



- Sports Halls Facilities (by capacity)
- 2497 - 3,984
  - 966 - 1,630
  - 58 - 965
  - Areas of Interest
  - Level 1 (Local Authorities & Old Districts)

1:128,669



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### 3 Demand for Sports Halls

Demand	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
Population	125,031	177,447	125,102	99,039	130,427	126,984	127,843	9,366,792	57,406,131
Visits demanded per week in peak period	10,057	14,900	9,838	8,110	10,596	10,272	10,472	778,455	4,842,030
Demand in courts with comfort factor included	34.2	50.6	33.4	27.5	36.0	34.9	35.6	2,644.2	16,447.1
% of demand in the 10% most deprived LSOAs nationally	0%	0%	0%	0%	8%	0%	0%	3%	10%

**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 courts. 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 March 2020 and are set out in Appendix 2.

### *Resident Population Demand*

- 3.1 The Office for National Statistics 2018-based population projection for East Hampshire is 125,031 in 2023.
- 3.2 **Key finding 3** is that the resident population generates demand for 10,057 visits in the weekly peak period, which equates to 34.2 courts with a comfort factor included. This is less than the District's available supply.

### *Geographical Distribution of Demand*

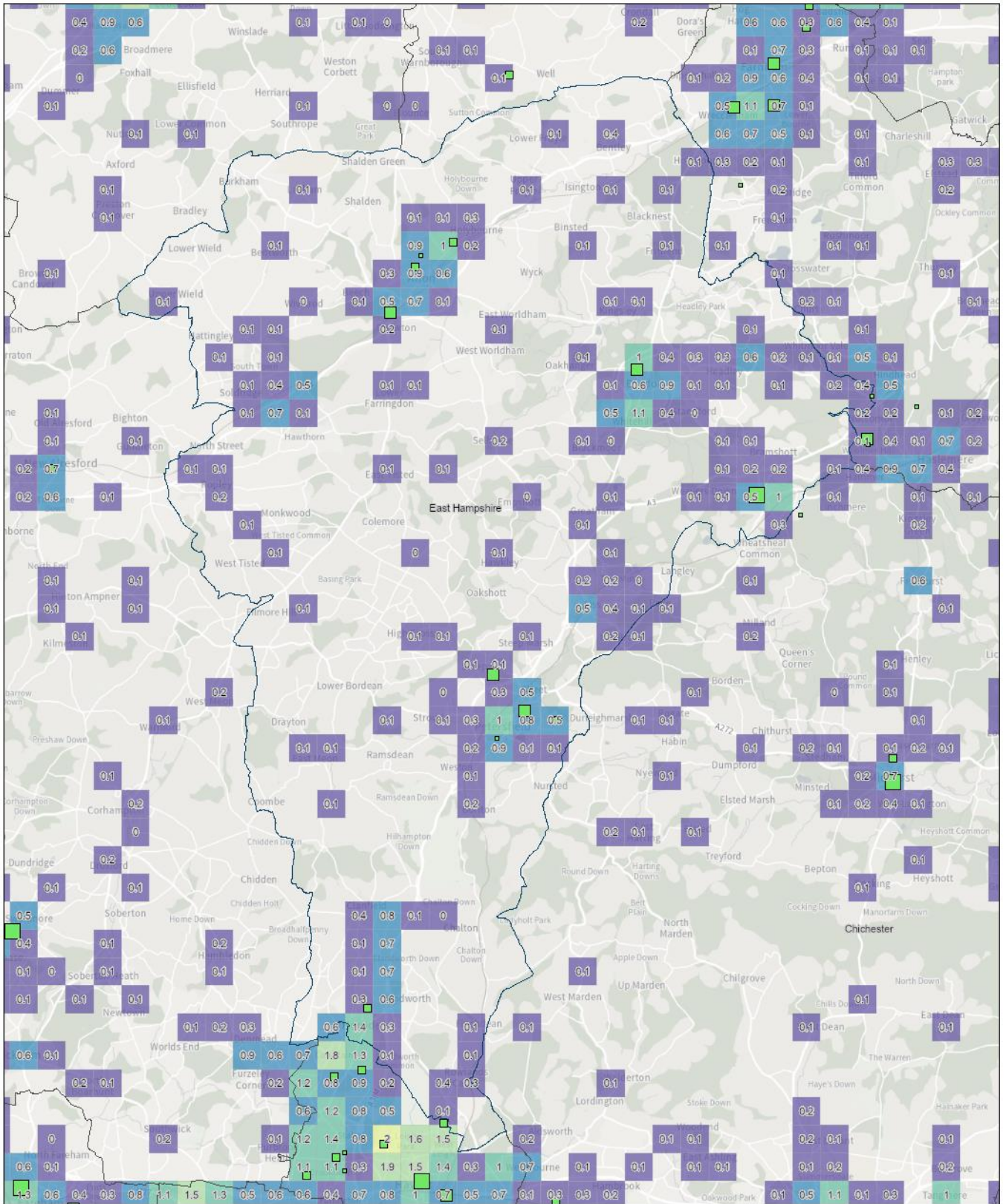
- 3.3 The greatest density of demand per square kilometre is in Horndean on the border with Havant, at 1.4 badminton courts (dark green square in Map **3.1**). The next highest density is in Whitehill (south Bordon), at 1.1 courts (dark green square). There is demand of 1.0 court per square kilometre (dark green squares) in:
- Northeast Alton (southwest of Eggars School)
  - North Bordon (north of Oakmoor School)
  - Liphook (east of Bohunt School)
  - Petersfield (north of Petersfield School and southwest of Churcher's College)
- 3.4 Across the rest of East Hampshire demand is less than 1.0 court per square kilometre (blue and purple squares), with no demand in many places.
- 3.5 To the south of the District between Clanfield and Horndean there is a linear stretch of demand of four square kilometres, totalling 2.8 courts (blue squares).

### *Deprivation*

- 3.6 None of East Hampshire's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally.
- 3.7 The area of highest deprivation in East Hampshire is southeast of Oakmoor School, Bordon (see Map **3.2**). The next highest areas of deprivation are:
- Northeast of Oakmoor School
  - Between HSDC Alton and Eggars School
  - Southeast of Amery Hill School, Alton
  - West of Petersfield School
- 3.8 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: Demand for Swimming Pools (2023)

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



**Sports Halls Facilities (by capacity)**

- 58 - 965
- 966 - 1,630
- 1631 - 2,496
- 2497 - 3,984
- Areas of Interest
- Level 1 (Local Authorities & Old Districts)

**Demand (1km grid)**

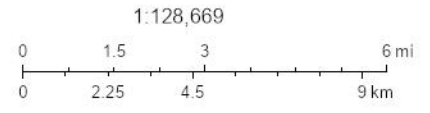
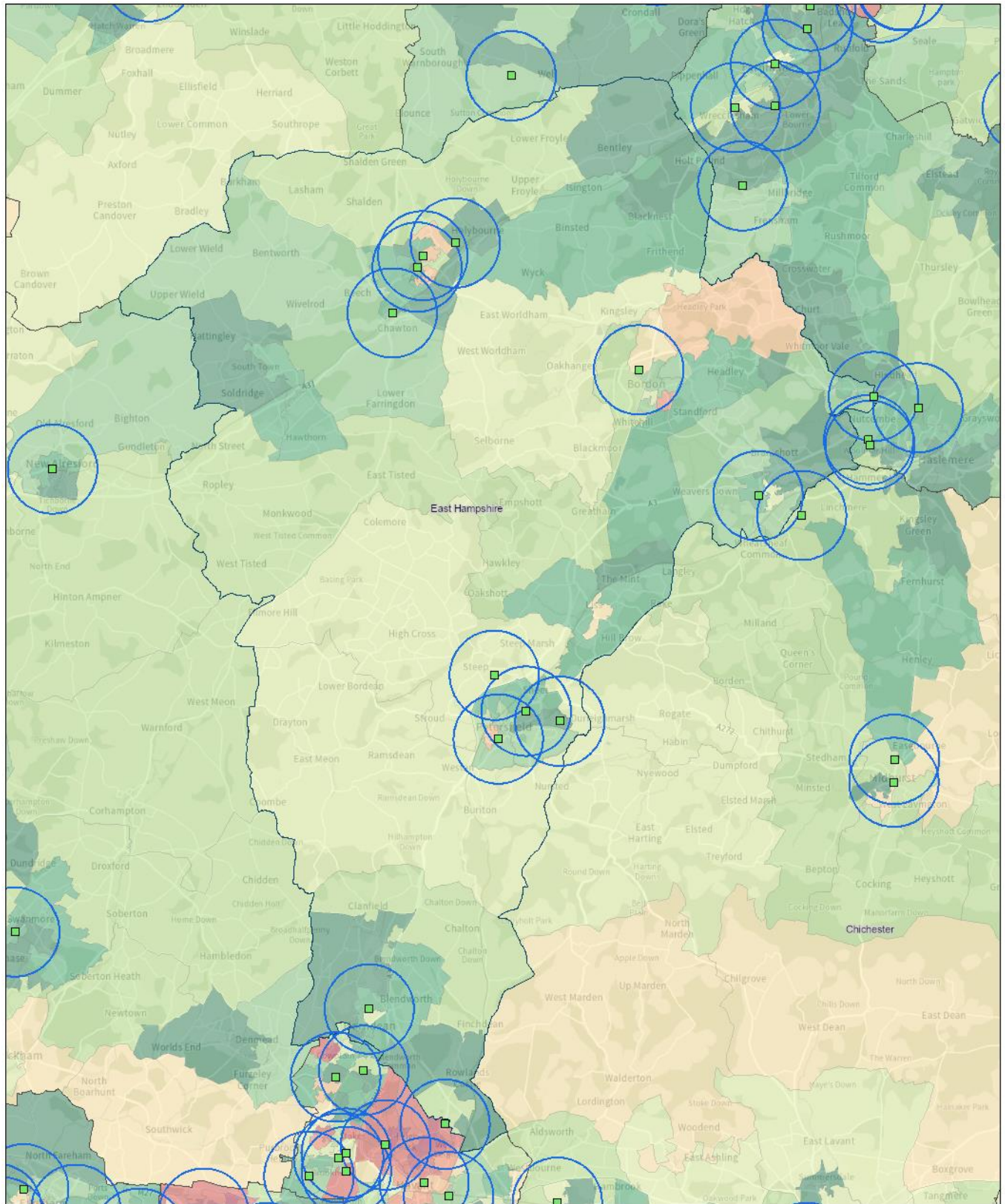
- 0 - 0.4
- 0.5 - 0.9
- 1.0 - 1.4
- 1.5 - 1.9
- 2.0 - 2.4

1:128,669

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### Map 3.2: Deprivation in East Hampshire (2023)

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



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## 4 Satisfied Demand

Demand from East Hampshire residents currently being met by supply

Satisfied Demand	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
Number of visits met per week in peak period	9,610	13,966	8,957	7,812	10,037	9,783	9,907	732,048	4,406,609
% of total demand satisfied	96%	94%	91%	96%	95%	95%	95%	94%	91%
Number of visits retained per week in peak period	7,390	12,734	7,268	5,467	8,453	7,660	6,880	717,573	4,403,158
Demand retained as a % of satisfied demand	77%	91%	81%	70%	84%	78%	69%	98%	100%
Number of visits exported per week in peak period	2,220	1,232	1,689	2,345	1,583	2,123	3,027	14,474	3,451
Demand exported as a % of satisfied demand	23%	9%	19%	30%	16%	22%	31%	2%	0%

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

### *Met Demand*

- 4.1 **Key finding 4** is that 96% of the demand for sports halls from East Hampshire residents is met. Residents can access a good level of supply, which is higher than both the South East Region average of 94% and the England-wide average of 91%.
- 4.2 With the exception of Chichester, the proportion of satisfied demand in the surrounding local authority areas is similar to East Hampshire. Satisfied demand ranges from 94% in Basingstoke and Deane, to 96% in Hart. Chichester's satisfied demand is lower, at 91%.

### *Retained Demand*

- 4.3 A subset of the satisfied demand findings shows how much of East Hampshire residents' demand for sports halls is met at halls located within the District. This assessment is based on the travel time from East Hampshire sports halls and residents in the District participating at these halls. This is called retained demand.
- 4.4 **Key finding 5** is that 77% of East Hampshire's satisfied demand is met at sports halls within the District.
- 4.5 The model iteratively allocates demand to facilities using a set of distance decay functions and choice parameters. It 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 sports 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 residents wish to participate in at times when they wish to do so.

### *Exported Demand*

- 4.6 The residue of satisfied demand, after retained demand, is exported demand. This is based on East Hampshire residents who live within the travel time of a sports hall located outside East Hampshire and use that sports hall.
- 4.7 Of East Hampshire's satisfied demand, 23% is exported and met at swimming pools outside the District. This equates to 2,220 visits in the weekly peak period.
- 4.8 The data from the National FPM Run does not identify how much of East Hampshire's demand goes to which other local authority area or sports hall, but only provides the total figure for exported demand. The destination of exported demand could be identified in a bespoke FPM run.

### Travel Patterns

Accessibility	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
% of population without access to a car	9%	14%	13%	7%	18%	10%	13%	16%	23%
% of total population within a 20-minute walk of a hall	44%	42%	26%	33%	66%	42%	39%	51%	57%
% of 10% most deprived population within a 20-minute walk of a hall	-	-	-	-	6%	-	-	2%	7%
% of demand satisfied when travelled:									
by car	89%	86%	89%	91%	79%	88%	86%	82%	77%
on foot	8%	9%	6%	7%	14%	8%	9%	11%	13%
by public transport	3%	5%	5%	3%	8%	4%	5%	7%	10%

**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. On average, a 20-minute travel time accounts for approximately 90% of journeys to sports halls.

### *Car Access*

- 4.9 In East Hampshire only 9% of the population does not have access to a car. This is lower than the regional average of 16% and the England-wide average of 23%.
- 4.10 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. For residents without access to a car, travel to sports halls by public transport and on foot become the choices of travel mode.
- 4.11 It is estimated that 89% of journeys to sports halls by East Hampshire residents are by car. This is higher than the regional average of 82% and the national average of 77%, and reflects the rural nature of the District.

### *Walking Access*

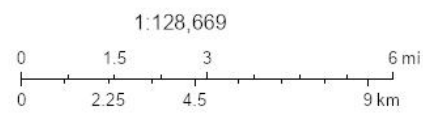
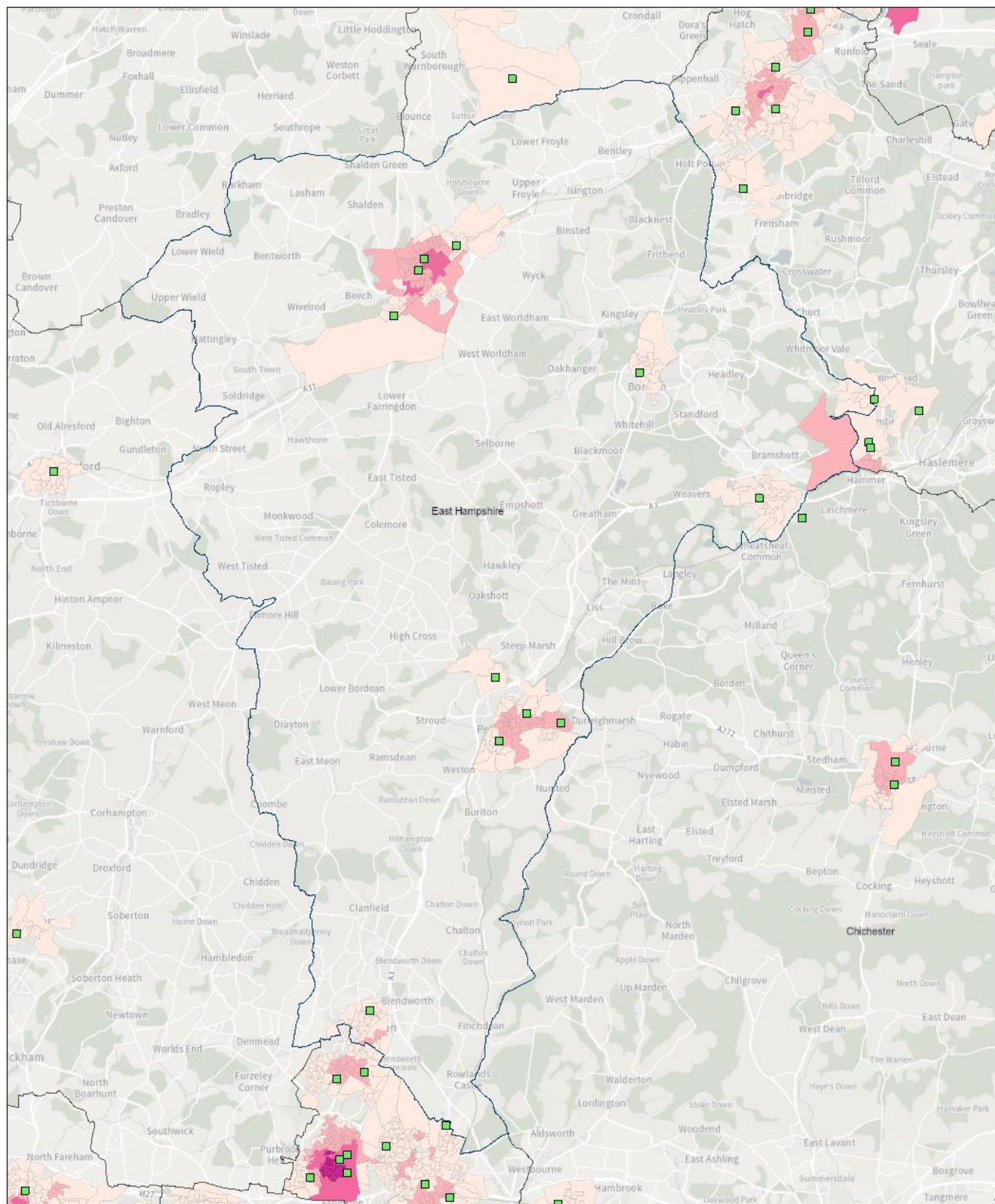
- 4.12 **Key finding 6** is that 44% of East Hampshire's residents are within a 20-minute walk of a sports hall (see pink areas in Map 4.1). Residents in Alton can access the most sports hall sites within a 20-minute walk because they are between three sites (dark pink area).
- 4.13 Residents in Hammer Bottom can walk to two sports hall sites in Waverley, and residents in Hordean can walk to one site in Havant.
- 4.14 However, not all residents in these areas will walk to a swimming pool and some will travel further. It is estimated that 8% of all journeys to sports halls are on foot.

### *Public Transport Access*

- 4.15 Visits to sports halls by public transport are estimated to account for only 3% of all journeys.

### Map 4.1: Walking Access to Sports Halls (2023)

FPM coverage shown thematically (colours) at output area level expressed as the number of sports hall sites within 20 minutes' walk of output area centroid.



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## 5 Unmet Demand

Demand from East Hampshire residents not currently being met

Unmet Demand	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
Total number of visits in the peak, not currently being met	447	934	881	298	560	489	565	46,407	435,421
Unmet demand as a % of total demand	4%	6%	9%	4%	5%	5%	5%	6%	9%
Equivalent in courts – with comfort factor	1.5	3.2	3.0	1.0	1.9	1.7	1.9	157.6	1,479.0
% of 10% most deprived demand unmet	-	-	-	-	1%	-	-	0%	1%
% of unmet demand due to:									
Facility too far away:	98%	96%	98%	98%	97%	100%	100%	91%	74%
Without access to a car	79%	82%	69%	81%	92%	85%	83%	82%	66%
With access to a car	19%	14%	29%	17%	5%	15%	17%	9%	8%
Lack of facility capacity:	2%	4%	2%	2%	3%	0%	0%	9%	26%
Without access to a car	1%	3%	1%	1%	2%	0%	0%	7%	22%
With access to a car	1%	1%	1%	1%	1%	0%	0%	2%	3%

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

1. There is too much demand for any particular sports hall within its travel time area and there is a lack of capacity.
2. The demand is located too far from any sports halls that it can use (taking into account deprivation) or reach (taking into account car access) and is then classified as unmet demand.

### *Causes of Unmet Demand*

- 5.1 Unmet demand in East Hampshire is 4% of demand and accounts for 447 visits in the weekly peak period.
- 5.2 **Key finding 7** is that unmet demand in the District totals 1.5 courts. Nearly all the unmet demand (98%) is from residents who are too far from a sports hall and is not due to lack of capacity (2%).
- 5.3 Demand located too far 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 (that is not commercial) and not everyone will want, or is able, to drive the full distance.
- 5.4 Of the unmet demand, 80% are residents who do not have access to a car.
- 5.5 The overall key point is not that unmet demand too far from a facility exists, but the scale of that unmet demand. Also, if this unmet demand is clustered in one location, further provision should be considered in order to improve accessibility for residents.

### *Geographical Distribution of Unmet Demand*

- 5.6 The greatest density of unmet demand is only 0.1 of a court per square kilometre (five purple squares Map 5.1) and is in the following areas:
- Bordon (Whitehill and Deadwater)
  - Liss
  - Petersfield
  - Clanfield
- 5.7 Clanfield Centre, excluded from this study, would meet the unmet demand in that area.
- 5.8 Across the rest of the District, unmet demand is less than 0.1 of a court per square kilometre (purple squares).

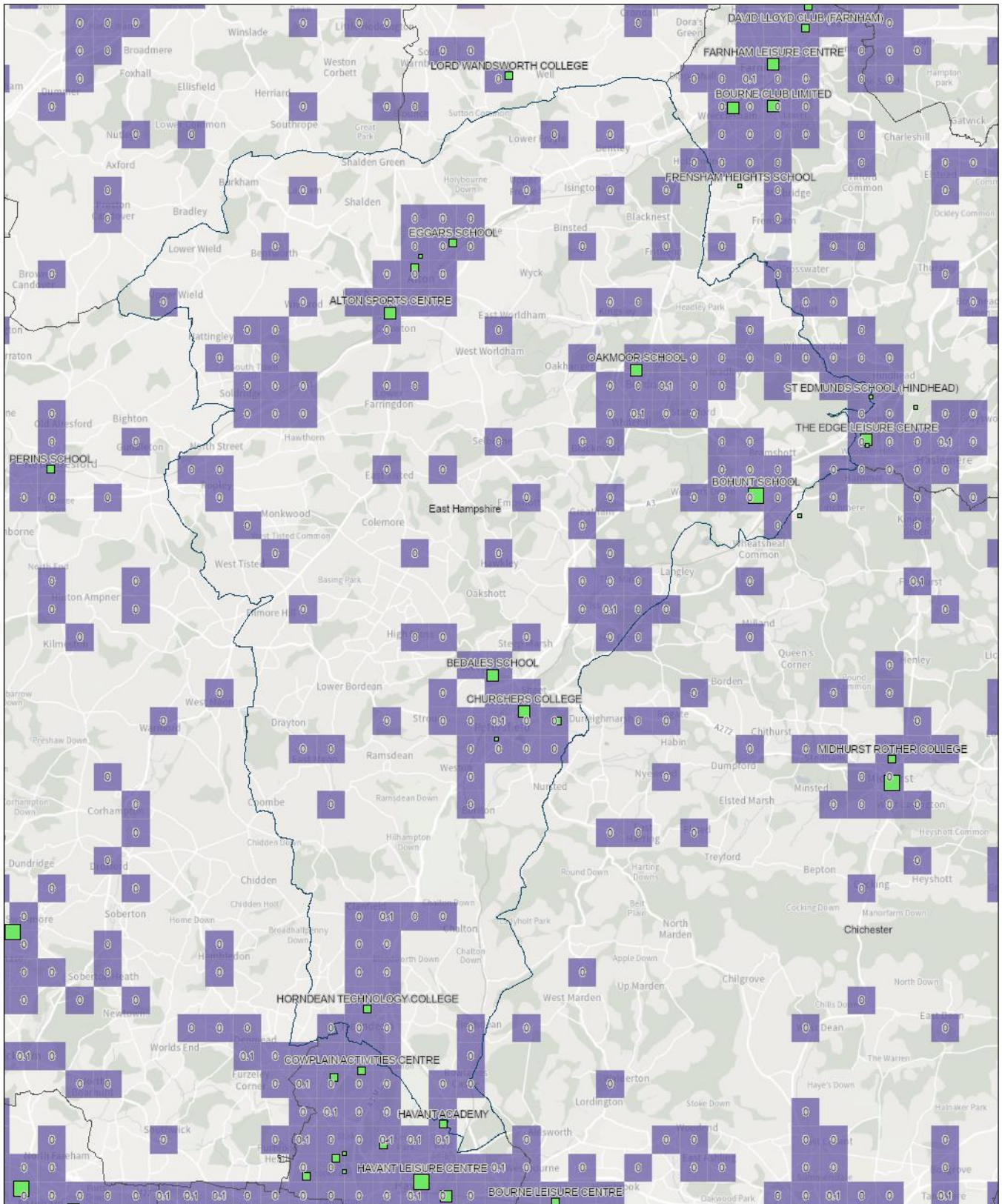
### *Meeting Unmet Demand*

- 5.9 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 and figures are shown in Map 5.2.
- 5.10 The location in East Hampshire where the most unmet demand can be met is on the border with Havant in three places, at 0.6 of a court (blue squares). However, this amount is insufficient to consider building a new sports hall, and also includes unmet demand from Havant.

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

### Map 5.1: Unmet Demand for Sports Halls (2023)

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



Sports Halls Facilities (by capacity)

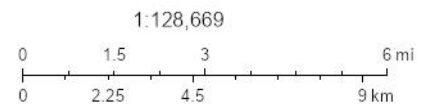
- 58 - 965
- 966 - 1,630
- 1631 - 2,496
- 2497 - 3,984

Areas of Interest

- Level 1 (Local Authorities & Old Districts)

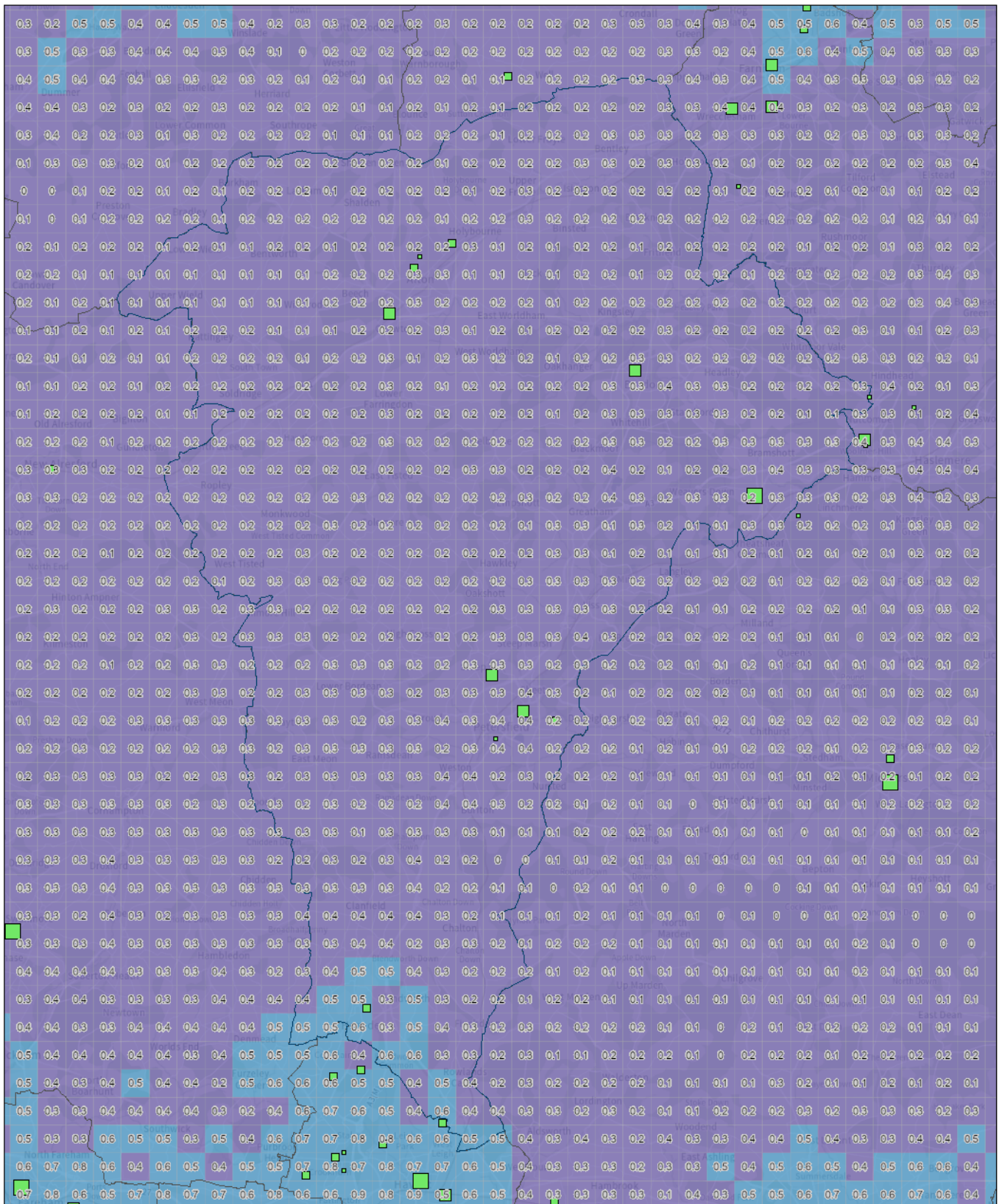
Unmet (1km grid)

- <=0.1



### Map 5.2: Reachable Unmet Demand for Sports Halls (2023)

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



Sports Halls Facilities (by capacity)

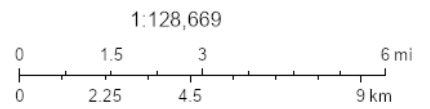
- 58 - 965
- 966 - 1,630
- 1631 - 2,496
- 2497 - 3,984

Areas of Interest

- Level 1 (Local Authorities & Old Districts)

Reachable Unmet (1km grid)

- 0 - 0.4
- 0.5 - 0.9



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## 6 Used Capacity

How well used are the facilities?

Used Capacity	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
Number of visits used of capacity per week in peak period	8,479	13,402	8,164	6,614	11,073	10,736	8,485	740,442	4,405,729
% of overall capacity of halls used	49%	71%	62%	44%	74%	55%	45%	65%	71%
Number of visits imported per week in peak period	1,089	668	896	1,147	2,619	3,076	1,604	22,869	2,571
Demand imported as a % of used capacity	13%	5%	11%	17%	24%	29%	19%	3%	0%
Difference between visits imported and exported	-1,131	-564	-794	-1,198	1,036	954	-1,423	8,395	-880

**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. The sports hall itself becomes too crowded to participate comfortably, and the changing and circulation areas also become too congested. In the model Sport England assumes that usage of more than 80% of capacity is busy and that the sports hall is operating at an uncomfortable level above that percentage.

*Used Capacity of Sports Halls in East Hampshire (2023)*

Site	Operation	Year Built	Year Refurb	Peak Hours	Total Hours	Site Capacity (visits per week in peak period)	% of Capacity Used	Visits Met in Weekly Peak Period
Alton Sports Centre	Public	2020		46	103.5	2,208	75%	1,649
Amery Hill School	Educational (in-house)	1984	2009	28.5	29.5	1,180	26%	312
Bedales School	Educational (in-house)	1984	2010	36.5	44.5	1,752	28%	490
Bohunt School	Educational (in-house)	1979	2012	44	87.5	2,889	42%	1,219
Churcher's College	Educational (in-house)	1992		29	39	1,704	35%	603
Eggars School	Educational (in-house)	2006		20	20	1,140	37%	417
Horndean Technology College	Educational (3rd party)	1976	2017	34	42	1,088	100%	1,088
HSDC Alton	Educational (in-house)	2002		25	25	800	41%	330
Oakmoor School	Educational (in-house)	2018		34	44	2,270	62%	1,406
Petersfield School	Educational (in-house)	1965	2010	15	15	761	54%	409
Taro Leisure Centre	Public	1992	2002 (excludes sports hall)	46	102.5	1,472	38%	557

### *Estimated Used Capacity*

- 6.1 **Key finding 8** is that the overall estimated used capacity of sports halls in East Hampshire during the weekly peak period is 49%. However, there is wide variation in the used capacity of the individual sports hall sites, ranging from 26% at Amery Hill School, to 100% at Horndean Technology College.
- 6.2 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/educational)
  - Age of the facility and its 'attractiveness' weighting
  - Location and competition from other sites
  - Scale and capacity
  - Imported demand

### *Public Leisure Centres*

- 6.3 Alton Sports Centre is estimated to be the second most utilised sports hall, at 75%, but meets the most visits (1,649) in the weekly peak period. This equates to 19% of the total 8,479 visits met by East Hampshire's sports halls.
- 6.4 Alton Sports Centre has a high used capacity because it is the newest sports hall in the District, and therefore the most attractive, but also because it is a public leisure centre.
- 6.5 Public leisure centres have higher used capacity because of their 'draw effect', as they:
- Are accessible for public use and sports club use
  - Have extensive opening hours and are proactively managed to encourage and support participation and physical activity
  - Unlike commercial facilities, do not require payment of a monthly membership fee
  - Provide all the activities
- 6.6 Taro Leisure Centre is estimated to be only 38% utilised and to meet only 557 visits in the weekly peak period. Even though it is a public leisure centre, there is good sports hall capacity in Petersfield from three other sites and not very much demand in the area.

### *Educational Sites*

- 6.7 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 venues there is little differentiation between educational and wider community use, with community access based on a membership system (classed as commercial)

- Other educational venues hire out their sports halls to sports clubs or community groups on a termly basis, or for shorter periods

6.8 A sports halls on an educational site that is only available for a few hours a week, and with an irregular pattern of use, is very different from a public leisure centre sports hall with a full programme of use. Also, educational venues will not be available for recreational pay-and-play.

6.9 Horndean Technology College has the highest proportion of used capacity because it is:

- Run by a third party and, therefore, is more attractive to users than the educational sports halls managed in-house
- Most recently refurbished, which increases its attractiveness
- In the area of highest demand on the border with Havant
- Has the third smallest capacity, which limits the number of visits it can meet

6.10 Clanfield Centre, excluded from this study, is north of Horndean Technology College and will share some of its used capacity.

### ***Attractiveness***

6.11 To assess their comparative attractiveness to customers, all sports halls in the model are weighted to reflect their age and whether they have been modernised, and how actively managed they are (educational sites managed in-house have a lower weighting).

6.12 The effect of refurbishment at a site decreases as the site gets older, and it becomes less attractive than a site built in the same year as the refurbishment.

6.13 Amery Hill School is the least utilised sports hall and meets the fewest visits. It is the second least attractive site in the District because it is an educational site that is managed in-house and, even though it was refurbished in 2009, it was originally built in 1984.

6.14 The quality and range of the offer are considered by customers. 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, such as Alton Sports Centre, rather than participate at the sports hall closest to where they live.

6.15 Amery Hill School is also the closest sports hall to Alton Sports Centre.

### ***Location***

6.16 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. The educational sites in Alton and Petersfield meet the fewest visits per site because of competition from other sports halls.

- 6.17 Conversely, Oakmoor School meets the second most visits and has a used capacity of 62% because it is the only site in Bordon where there is high demand.

### *Capacity*

- 6.18 It is important to consider the scale of the sports halls site when looking at estimated used capacity and not just the percentage figure in isolation.
- 6.19 Petersfield School is estimated to be 54% utilised but only meets 409 visits in the weekly peak period. Bohunt School is 42% utilised but meets three times as many visits, at 1,219.

### *Site Variation*

- 6.20 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*

- 6.21 If residents of neighbouring local authority areas participate at a site in East Hampshire, their usage becomes part of the used capacity of East Hampshire's sports halls.
- 6.22 Imported demand accounts for only 13% of used capacity in the District. East Hampshire's sports halls cater for 1,089 visits from residents of neighbouring local authorities.
- 6.23 **Key finding 9** is that East Hampshire exports 1,131 more visits than it imports in the weekly peak period.

## 7 Local Share of Facilities

Equity share of facilities

Share	East Hampshire	Basingstoke & Deane	Chichester	Hart	Havant	Waverley	Winchester	South East Region	England
Local share of sports halls relative to demand in local area <1 = poorer, >1 = better	0.97	0.60	0.90	1.13	0.55	0.80	0.94	0.78	0.67
Courts per 10,000 population	5.4	3.9	3.9	5.5	4.5	7.1	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 (considering deprivation). Local share decreases as facilities age.

### *Share of Sports Halls*

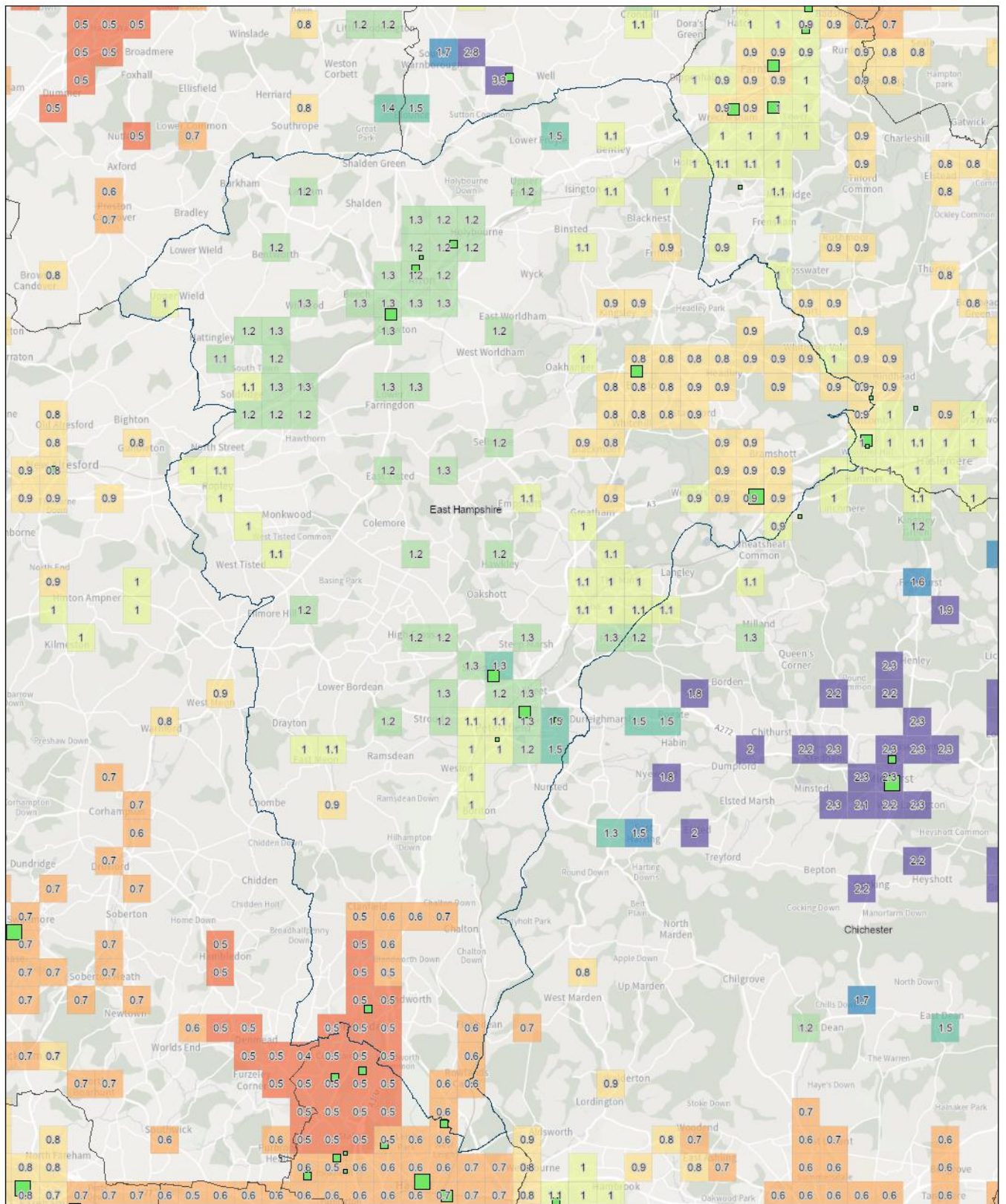
- 7.1 Local share shows how access and share of sports halls differs across the local authority area, as follows:
- A value of 1 means that there is enough suitable supply reachable by the demand
  - A value of less than 1 indicates a shortage of suitable supply that can be reached by the demand
  - A value greater than 1 indicates a surplus of suitable supply that can be reached by the demand
- 7.2 Overall, local share identifies the areas of the 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 East Hampshire has a local share value of 0.97, meaning that overall there is sufficient suitable provision to meet demand.
- 7.4 **Key finding 10** is that the geographical distribution of local share varies across East Hampshire, from very poor in the south of the District to very good in the northwest (see Map 7.1).
- 7.5 Local share is poorest in Horndean, at 0.5 (red squares), where demand is highest. The addition of Clanfield Centre would improve the local share in the area to 0.6 (orange squares). Local share is also low in the east of the District, at 0.8 and 0.9 (yellow squares). Only Oakmoor School and Bohunt School are located in this area, and demand is high in Bordon.
- 7.6 Local share is best in west Petersfield and Lower Froyle, at 1.5 (dark green squares). Local share is also good around Steep and Alton, at 1.2 and 1.3 respectively (light green squares).

### *Comparative Measure of Provision*

- 7.7 A comparative measure of sports hall provision is badminton court equivalents per 10,000 population.
- 7.8 East Hampshire has 5.4 courts per 10,000 population. This is higher than the South East Region average of 4.5 courts and the national average of 4.0 courts. Of the neighbouring local authorities, Waverley has the highest level of provision per 10,000 population at 7.1 courts, and Basingstoke and Deane and Chichester have the lowest at 3.9 courts.
- 7.9 **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.**
- 7.10 The supply and demand assessment for sports halls in East Hampshire is based on the findings from the previous five headings analysed in this report.

### Map 7.1: Local Share of Sports Halls (2023)

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

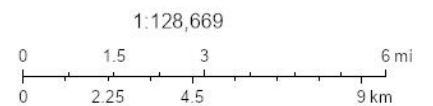


**Sports Halls Facilities (by capacity)**

- 58 - 965
- 966 - 1,630
- 1631 - 2,496
- 2497 - 3,984
- Areas of Interest
- Level 1 (Local Authorities & Old Districts)

**Local Share (badminton courts)**

- 0.4 - 0.5
- 0.6 - 0.7
- 0.8 - 0.9
- 1.0 - 1.1
- 1.2 - 1.3
- 1.4 - 1.5
- 1.6 - 1.7
- >=1.8



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## 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
Alton Community Centre	Activity	Principal hall too small
Alton School	Activity	Principal hall too small
Alton Sports Centre (closed)	Main	Closed
	Activity	Closed
Bentley Memorial Hall	Activity	Principal hall too small
Bohunt School	Main	Private use
Buriton Village Hall	Activity	Principal hall too small
Clanfield Centre	Main	Missing details at time of national run
Ditcham Park School	Main	Private use
	Main	Private use
	Activity	Private use
East Meon Village Hall	Activity	Principal hall too small
Forest Community Centre (Bordon)	Activity	Principal hall too small
Four Marks C of E Primary School	Activity	Private use
Four Marks Village Hall	Activity	Principal hall too small
Herne Farm Leisure Centre	Activity	Principal hall too small
Herne Junior School	Activity	Private use
Hollywater School	Activity	Private use
Lovedean Village Hall	Activity	Principal hall too small
Medstead Village Hall	Activity	Principal hall too small
Merchistoun Hall	Activity	Principal hall too small
Mill Chase Academy (closed)	Activity	Closed
Mill Chase Leisure Centre (closed)	Main	Closed
Treloar School (closed)	Barn	Closed
	Activity	Closed
Treloar School and College	Activity	Principal hall too small
	Activity	Principal hall too small
Whitedown School (closed)	Activity	Closed

## 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 sports halls, swimming pools, indoor bowls centres and artificial grass pitches.

#### 2. Use of FPM

- 2.1. Sport England uses the FPM as one of its principal tools in helping to assess the strategic need for certain community sports facilities. The FPM has been developed as a means of:
  - Assessing requirements for different types of community sports facilities on a local, regional, or national scale.
  - Helping local authorities to determine an adequate level of sports facility provision to meet their local needs.
  - Helping to identify strategic gaps in the provision of sports facilities.
  - Comparing alternative options for planned provision, taking account of changes in demand and supply. This includes testing the impact of opening, relocating, and closing facilities, and the likely impact of population changes on the needs for sports facilities.
- 2.2. Its current use is limited to those sports facility types for which Sport England holds substantial demand data, i.e., swimming pools, sports halls, indoor bowls, and artificial grass pitches (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.

#### 4. How the Model Works

- 4.1. 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.
- 4.2. 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.
- 4.3. 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.
- 4.4. 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.
- 4.5. This survey information is combined with other sources of data to provide a set of model parameters for each facility type. The original core user data for halls and pools comes from the National Halls and Pools survey undertaken in 1996. This data formed the basis for the National Benchmarking Service (NBS). For AGPs, the core data used comes from the user survey of AGPs carried out in 2005/06 jointly with sportscotland.
- 4.6. 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 sport 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. Approximately 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.

## 5. Calculating Demand

- 5.1. 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.
- 5.2. 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>.
- 5.3. 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.

## 6. Calculating Supply Capacity

- 6.1. A facility's capacity varies depending on its size (i.e., size of pool or hall, or number of pitches), and how many hours the facility is available for use by the community.
- 6.2. The FPM calculates a facility's capacity by applying each of the capacity factors taken from the model parameters, such as the assumptions made as to how many 'visits' can be accommodated by the particular facility at any one time. Each facility is then given a capacity figure in VPWPP.

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<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>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.

- 6.3. 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.
- 6.4. 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 local authority area, 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.
- 6.5. In making calculations as to supply and demand, visits made to sports facilities are not artificially restricted or calculated by reference to administrative boundaries, such as local authority areas. Users are generally expected to use their closest facility. The FPM reflects this through analysing the location of demand against the location of facilities, allowing for cross-boundary movement of visits. For example, if a facility is on the boundary of a local authority, users will generally be expected to come from the population living close to the facility, but who may be in an adjoining authority.

## **7. Calculating the Capacity of Sports Halls – Hall Space in Courts (HSC)**

- 7.1. 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.
- 7.2. 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 of the actual main hall. For example, a hall may be marked out with 4 courts, when it has

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<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 the majority of users travel up to 20 minutes. The FPM also takes account of the road network when calculating travel times. Car ownership levels, taken from census data, are also taken into account when calculating how people will travel to facilities.

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' (VPWPP), 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.'

## 8. Facility Attractiveness – for Halls and Pools Only

8.1. 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.

8.2. 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.

8.3. 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.

8.4. Commercial facilities – halls and pools: Whilst there are relatively few sports halls provided by the commercial sector, an additional weighing factor is incorporated within the model to reflect the cost element often associated with commercial facilities. For each population

output area the Indices of Multiple Deprivation (IMD) score is used to limit whether people will use commercial facilities. The assumption is that the higher the IMD score (less affluence), the less likely the population of the OA would choose to go to a commercial facility.

- 8.5. 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. IMD is an overall relative measure of deprivation constructed by combining seven domains of deprivation according to their relative weights.

## 9. Comfort Factor – Halls and Pools

- 9.1. 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 = 8 users/court). This gives each facility a 'theoretical capacity'.
- 9.2. 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.
- 9.3. 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 predominantly used by teams which have a set number of players, therefore the notion of having a 'less busy' pitch is not applicable.)
- 9.4. 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.

## 10. Utilised Capacity (Used Capacity)

- 10.1. Following on from the comfort factor section, here is more guidance on utilised capacity.

10.2. 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.

10.3. For example, a 25m, four-lane pool has a theoretical capacity of 2,260 per week, during a 52.5-hour peak period.

10.4. 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

10.5. As a guide, 70% utilised capacity is used to indicate that 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.’

## 11. Travel Times

11.1. The model uses travel times to define facility coverage in terms of driving and walking.

11.2. Ordnance Survey’s (OS) MasterMap Highways Network Roads was 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.

11.3. OS MasterMap Highways Network Paths is used to calculate walk times along paths and roads, excluding motorways and trunk roads. A standard walking speed of 3 mph is used for all journeys.

11.4. 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, the model reduces the number of visits made by car and increases those made on foot.

11.5. Overall, surveys have shown that the majority of visits made to swimming pools, sports halls and AGPs are made by car, with a significant minority of visits to pools and sports halls being made on foot.

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

11.6. 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 almost 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 sports halls and swimming pools.

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%

11.7. 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<sup>4</sup>.

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

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

### Model Parameters

#### Sports Halls Parameters

At One Time Capacity	32 users per 4-court hall, 15 users per 144 square meters of ancillary hall.																											
Coverage Maps	Car: 20 minutes Walking: 1.6 km Public transport: 20 minutes at about half the speed of a car  NOTE: Travel times are indicative, within the context of a distance decay function of the model.																											
Duration	60 minutes																											
Percentage Participation	<table border="1"> <thead> <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> </thead> <tbody> <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> </tbody> </table>							Age	0-15	16-24	25-34	35-44	45-59	60-79	Male	20.4	16.7	13.9	11.6	10.2	7.3	Female	24.5	17.8	17.1	15.3	15.1	12.1
Age	0-15	16-24	25-34	35-44	45-59	60-79																						
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Female	24.5	17.8	17.1	15.3	15.1	12.1																						
Frequency per Week	<table border="1"> <thead> <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> </thead> <tbody> <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> </tbody> </table>							Age	0-15	16-24	25-34	35-44	45-59	60-79	Male	0.65	0.95	0.93	0.84	1.00	1.14	Female	0.74	1.20	1.21	1.07	1.18	1.01
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Male	0.65	0.95	0.93	0.84	1.00	1.14																						
Female	0.74	1.20	1.21	1.07	1.18	1.01																						
Peak Period	Weekday: 9:00 to 10:00, 17:00 to 22:00 Weekend: 08:00 to 16:00 Total: 46 hours																											
Proportion in Peak Period	62%																											