Facilities Planning Model Assessment of Sports Halls Provision for Chichester District Council

Standard Report

8 February 2024

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Accreditations

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

EXECUTIVE SUMMARY

0.1 This report for Chichester District Council (also referred to as Chichester or the District) provides an initial assessment of the current supply and demand for provision of sports halls in Chichester 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 a high proportion of Chichester's demand for sports halls is met, which is similar to the national average. However, the distribution of sports halls across the District does not align with demand, and two sports halls are estimated to be uncomfortably full at peak times while others are under-utilised.

Key Findings

0.3 The key findings from the supply, demand and access assessment are as follows:

1. The total sports hall space in Chichester included in the FPM is the equivalent of 48.7 badminton courts. When scaled to the amount of time that courts are available during the weekly peak period, this reduces to 35.5 courts.
2. The educational sector provides 51% of the available capacity in Chichester in the weekly peak period and has scope to increase capacity if required.
3. The resident population generates demand for 9,838 visits in the weekly peak period, which equates to 33.4 courts with a comfort factor included.
4. Of the demand for sports halls from Chichester residents, 91% is met in 2023.
5. Of Chichester's satisfied demand, 81% is met at sports halls within the District.
6. Of Chichester's residents, 26% are within a 20-minute walk of a sports hall.
7. Unmet demand totals the equivalent of 3.0 badminton 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 Chichester during the weekly peak period is 62%.
9. There is wide variation in the estimated used capacity of the individual sports hall sites in the weekly peak period, ranging from 11% to 100%. Westgate Leisure Centre and The Academy Selsey are estimated to be uncomfortably full (more than 80% utilised).
10. There is wide variation in local share across the District, with residents in the National Park area being able to reach plenty of supply and residents in the south not having enough.

Strategic Overview

0.4 Chichester has a good range of sports halls spread across the District, with two larger halls in the city offering a broad variety of activities. There has been a good record of investment in new facilities and modernisation of the older sites. The available supply of sports halls for community use is greater than the demand, and unmet demand is low.

0.5 The educational sector is the main provider of sports halls, but the public leisure centres do meet over half of the used capacity in the District. Continuing community use at the educational sites is important but is dependent on each establishment's policy towards making their sports halls available.

0.6 Westgate Leisure Centre and The Academy Selsey are estimated to be full at peak times.

0.7 Westgate Leisure Centre is available for community use for nearly the whole peak period, therefore, there is no scope to increase capacity at peak times to reduce the proportion of used capacity to a comfortable level. Chichester College Sports Centre and Chichester High School are close to Westgate Leisure Centre and have spare capacity. It may be possible to work with these sites to meet some of the demand that currently goes to Westgate Leisure Centre. Chichester High School has a six-court hall and two activity halls that were built in 2008 and, therefore, would be the best site to target.

0.8 The Academy Selsey has a four-court hall (35m x 20m) that was built in 2009 but is only available for community use for 54% of the weekly peak period. Its opening hours could be extended by up to 21 hours per week. This would increase the capacity and reduce the proportion of capacity used to a comfortable level. It would also meet unmet demand in the area and improve local access to sports halls and, therefore, is an important site to target.

Next Steps

0.9 Chichester 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.

0.10 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.

0.11 Given the strategic overview, the following will be significant:

- Community use agreements for educational sports halls, if not already in place
- Projected population growth in the south of the District
- Known committed changes in the current available supply of sports halls

0.12 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.

0.13 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 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 Chichester District Council area. The assessment does not include future population growth projections but is a baseline evidence base for sports halls 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
- Application of the research applied by Sport England in determining the strategy and the evidence base
- 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 Chichester, for example, proportion of demand met.

1.14 Maps to support the findings on facility locations, demand, 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 Hall Supply

Supply	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Number of halls	12	10	18	18	21	22	1,083	6,002
Number of hall sites	9	7	11	11	15	15	743	4,110
Supply in badminton court equivalents	48.7	41.0	67.0	59.1	81.6	90.3	4,196.0	23,153.1
Supply in courts scaled with hours available in peak period	35.5	36.1	46.9	40.8	66.8	52.6	3,109.3	16,810.7
Supply in visits per week in peak period	13,066	13,271	17,264	15,029	24,589	19,362	1,144,218	6,186,355
Average year built all sites	2001	1989	1992	1978	1992	1986	1993	1992
Average year built public sites	2001	2009	2006	1983	1993	1981	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.

2.1 There are 12 sports halls across nine sites in Chichester that are available for community use. The facilities excluded from the study are listed in Appendix 1.

2.2 **Key finding 1** is that the total sports hall space in Chichester included in the FPM is the equivalent of 48.7 badminton courts. When scaled to the amount of time that courts are available during the weekly peak period, this reduces to 35.5 courts.

2.3 Of the court space in Chichester, 27% is unavailable for community use in the weekly peak period, which equates to 13.2 badminton courts.

2.4 The sports halls can accommodate a total of 13,066 visits per week in the peak period.

Sports Halls Included in Chichester (2023)

Site	Operation	Facility Type	Dimensions (m)	Hall Area (sqm)	Year Built	Year Refurb	Weekly Peak Hours	Total Hours Open per Hours	Site Capacity (visits per week in peak period)
Bourne Leisure Centre	Public	4-court	35 x 20	690	2003		44.5	99.5	1,424
Chichester College Sports Centre	Edu. (in-house)	4-court	33 x 18	594	2004		41	47.8	1,312
Chichester High School	Edu. (in-house)	6-court Activity Activity	35 x 27 18 x 10 18 x 10	932 180 180	2008		27.5 27.5 27.5	33.5 33.5 33.5	2,351
Highfield and Brookham Schools	Edu. (in-house)	4-court	35 x 20	690	unknown	recently	12	20	384
Midhurst Rother College	Edu. (in-house)	4-court	35 x 20	690	2006		41	46	1,312
Seaford College	Edu. (in-house)	4-court	33 x 18	594	1978	2015	14	16	448
The Academy Selsey	Edu. (in-house)	4-court	35 x 20	690	2009		25	25	800
The Grange Community and Leisure Centre	Public	4-court Activity	35 x 20 18 x 17	690 306	2014		45 45	92.5 92.5	2,874
Westgate Leisure Centre	Public	6-court	35 x 27	932	1987	2005	45	100.5	2,160

Public Leisure Centres (pay-and-play access)

2.5 Three of the sports hall sites are public leisure centres. They are operated by Everyone Active on behalf of Chichester 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.

2.6 Westgate Leisure Centre has a six-court hall with dimensions of 35m x 27m. This size of hall enables flexible use and can accommodate two or more activities at the same time.

2.7 Bourne Leisure Centre and The Grange Community and Leisure Centre both have four-court halls with dimensions of 35m x 20m. This 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.

2.8 The Grange Community and Leisure Centre also has an activity hall with dimensions of 18m x 17m.

2.9 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.

2.10 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.

2.11 The Grange Community and Leisure Centre has the largest site capacity in the District in the weekly peak period, at 2,874 visits.

2.12 All the public sports halls are available for nearly the full amount of hours in the weekly peak period. Together they provide 49% of the available capacity in Chichester in the weekly peak period.

Educational Providers (sports club/community association use)

2.13 Six of the sites are educational providers, and all of the sports halls are managed in-house.

2.14 Chichester High School has the second largest capacity in the District, at 2,351 visits in the weekly peak period. It has a six-court hall and two activity halls.

2.15 The other educational sites all have four-court halls:

- Three have dimensions of 35m x 20m:
    - Highfield and Brookham Schools
    - Midhurst Rother College

- The Academy Selsey

- Two have dimensions of 33m x 18m, which can accommodate sports at the community level of participation, but with less space between and behind courts:
  - Chichester College Sports Centre
  - Seaford College

2.16 Each educational provider determines the policy on community use of its site, together with the programme and hours of use.

2.17 Chichester College Sports Centre and Midhurst Rother College have the greatest availability for community use in the weekly period, at 41 hours. This is the maximum number of hours for an educational site without opening during the day.

2.18 The Academy Selsey and Chichester High School are available for between 54% and 60% of the weekly peak period, at 25 hours and 27.5 hours respectively. There is scope to increase the capacity at these sites in the weekly peak period to allow more community use.

2.19 Highfield and Brookham Schools and Seaford College both have very limited opening hours for community use, and are only available for 12 hours and 14 hours respectively. They have the smallest capacities in the District.

2.20 Key finding 2 is that the educational sector provides 51% of the available capacity in Chichester in the weekly peak period and has scope to increase capacity if required.

Age

2.21 Excluding Highfield and Brookham Schools, the average age of the sports halls in Chichester is 23 years.

2.22 The three oldest sports halls, built before 1990, have been refurbished in the last 20 years. The other sports halls were built between 2003 and 2014.

2.23 Refurbishment 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

2.24 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.

2.25 Westgate Leisure Centre is the oldest public leisure centre. It was built in 1987 and refurbished in 2005.

2.26 The Grange Community and Leisure Centre is the most recent sports hall site to open in 2014.

2.27 The most recent educational sites to open are:

- The Academy Selsey in 2009
- Chichester High School in 2008

Locations

2.28 Three of the sports hall sites are close together to the southwest of Chichester city centre, and two are close together in Midhurst (see Map **2.1**).

2.29 The other sites are well distributed across the District, with one site in each of:

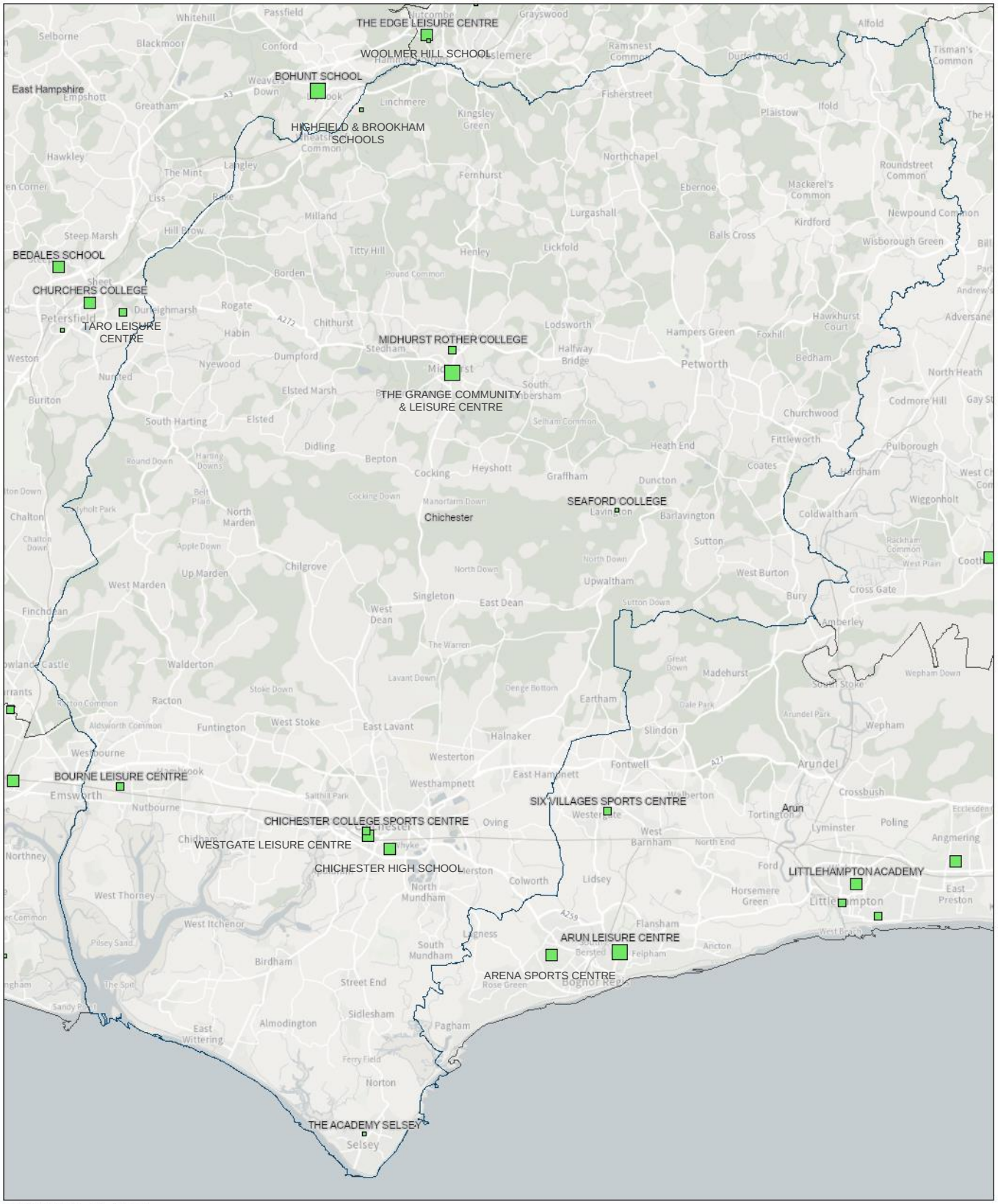
- Selsey (south of the District)
- Southbourne (west of the District)
- East Lavington (east of the District)
- Northwest of the District (on the border of Liphook in East Hampshire)

2.30 There are no sports halls in the northeast of the District.

2.31 There are sports halls in all the neighbouring local authorities close to Chichester's borders.

Map 2.1: Sports Halls Locations in 2023

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



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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)

1:130,000

0 1.5 3 6 mi

0 2.25 4.5 9 km

3 Demand for Sports Halls

Demand	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Population	125,102	167,167	125,031	130,427	149,766	126,984	9,366,792	57,406,131
Visits demanded per week in peak period	9,838	13,003	10,057	10,596	12,074	10,272	778,455	4,842,030
Demand in courts with comfort factor included	33.4	44.2	34.2	36.0	41.0	34.9	2,644.2	16,447.1
% of demand in the 10% most deprived LSOAs nationally	0%	4%	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 Chichester is 125,102 in 2023.

3.2 **Key finding 3** is that the resident population generates demand for 9,838 visits in the weekly peak period, which equates to 33.4 courts with a comfort factor included. This is less than Chichester's available supply.

Geographical Distribution of Demand

3.3 Demand for sports halls is highest in the A27 corridor area of Chichester (see Map **3.1**). In the Manhood area of the District, there are two clusters of higher demand in Selsey, and in East Wittering and Bracklesham. Demand is very low and dispersed in the National Park area of the District, with large areas where there is no demand.

3.4 Demand is greatest in Chichester city centre, totalling 8.2 badminton court equivalents across nine square kilometres (blue and green squares). The greatest densities of demand per square kilometre are 1.5 courts (light green square), east of Westgate Leisure Centre, and 1.3 courts, north of Westgate Leisure Centre (dark green square).

3.5 The area of next highest demand is in Selsey, on the southern coast of the District, with demand 3.1 courts across eight square kilometres (green, blue and purple squares).

3.6 There is a high density of demand in Tangmere, east of Chichester city, at 1.0 court per square kilometre (dark green square).

3.7 There are six areas of Chichester where the density of demand is between 0.5 and 0.9 courts per square kilometre (blue squares):

- East Wittering and Bracklesham
- Emsworth and Southbourne
- Midhurst
- Fernhurst
- Petworth
- Fishbourne (west of Chichester city)

Deprivation

3.8 None of Chichester's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally.

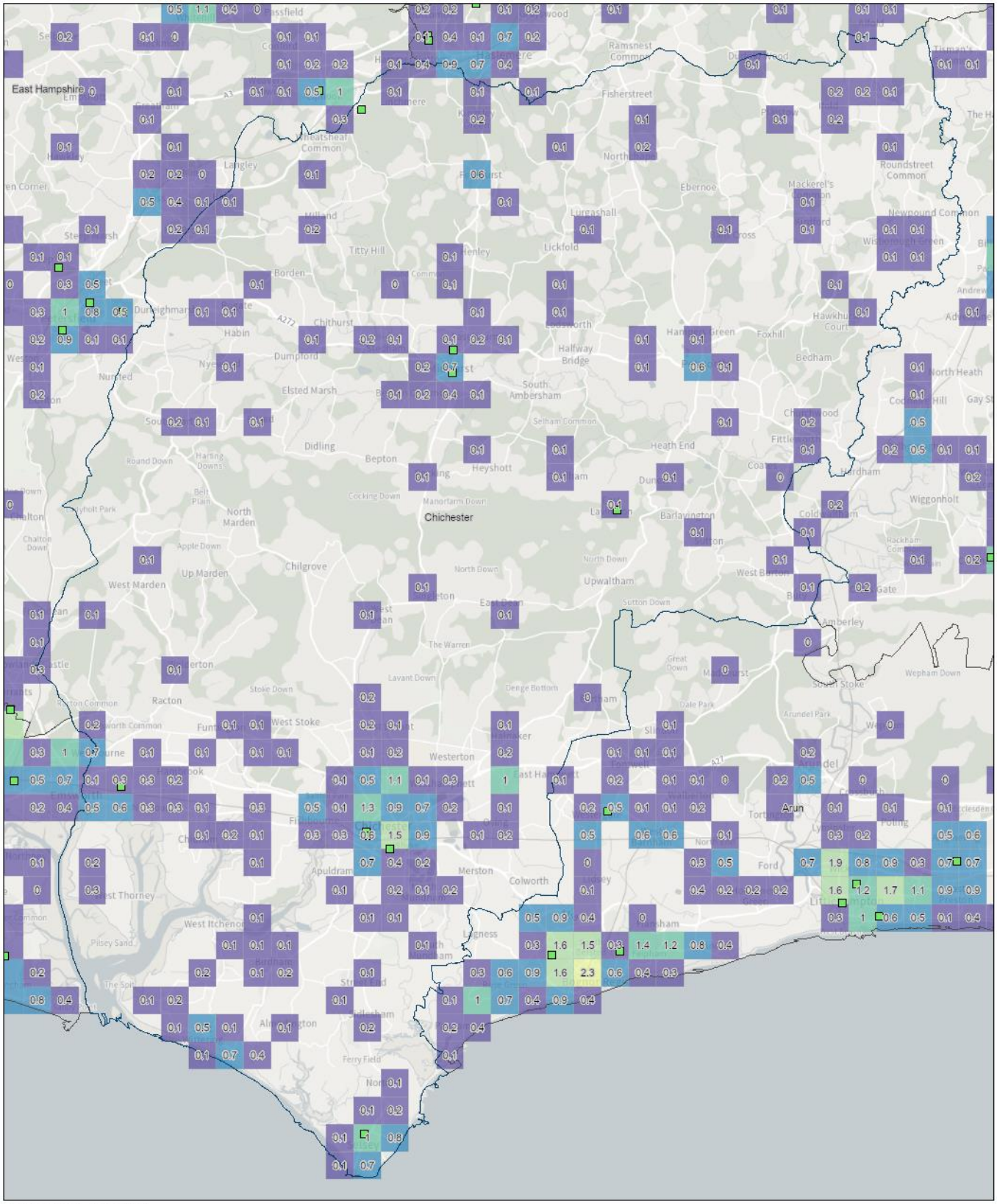
3.9 The areas of highest deprivation in Chichester are northeast of the city centre in Portfield, and south of the city centre where Chichester High School is located (see Map 3.2). The next highest areas of deprivation in the District are:

- Northeast of the city centre
- North Selsey, close to The Academy Selsey
- Bracklesham

3.10 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 in 2023

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



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Sports Halls Facilities (by location)

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

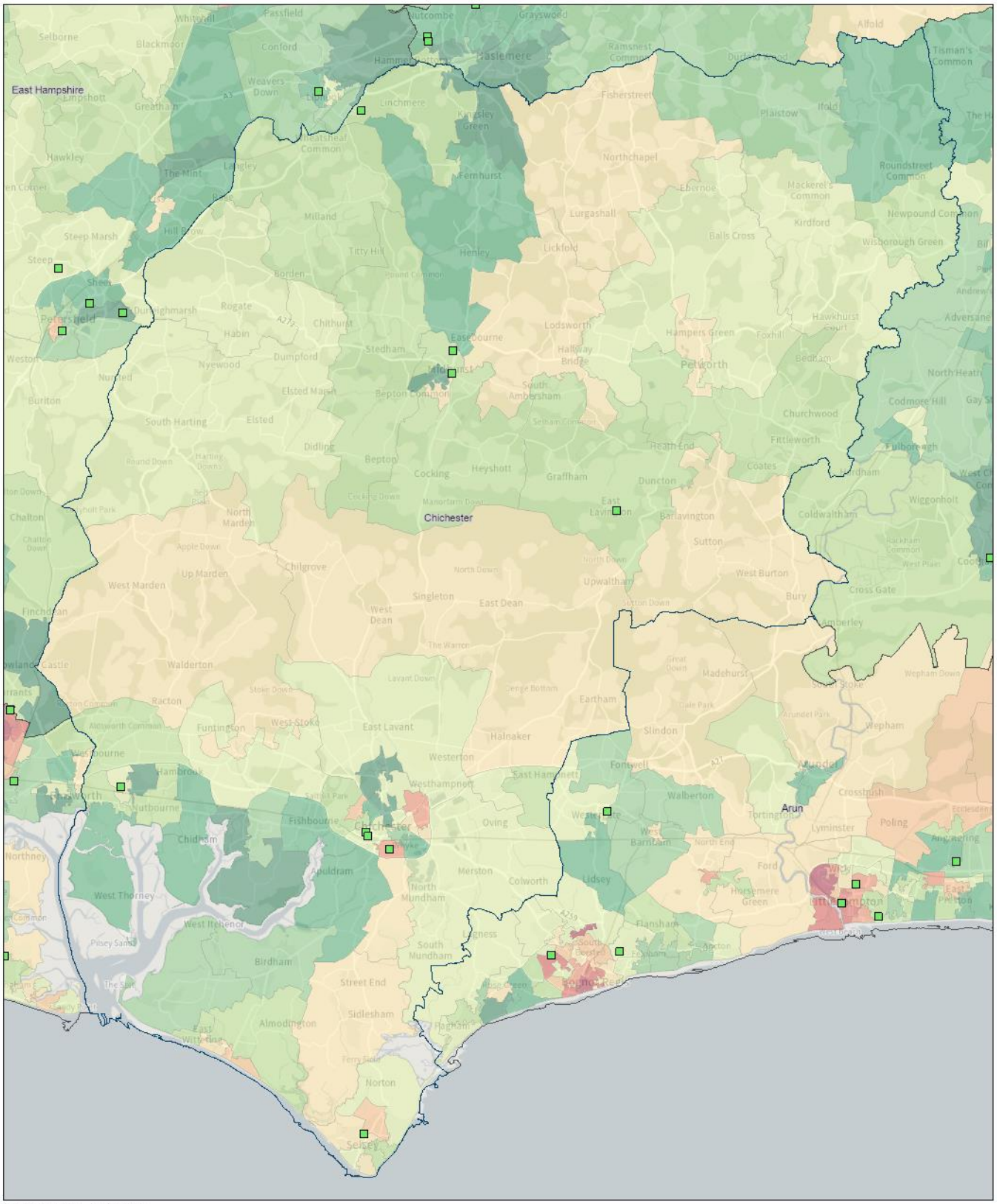
1:130,000

0 1.5 3 6 mi

0 2.25 4.5 9 km

Map 3.2: Deprivation in 2023

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



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- Sports Halls Facilities (by location)
- Areas of Interest
- Level 1 (Local Authorities & Old Districts)

Indices of Multiple Deprivation (IMD) 2019

- 10% Most Deprived
- 10% Least Deprived

1:130,000

0 1.5 3 6 mi

0 2.25 4.5 9 km

4 Satisfied Demand

Demand from Chichester residents currently being met by supply

Satisfied Demand	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Number of visits met per week in peak period	8,957	11,979	9,610	10,037	11,538	9,783	732,048	4,406,609
% of total demand satisfied	91%	92%	96%	95%	96%	95%	94%	91%
Number of visits retained per week in peak period	7,268	10,327	7,390	8,453	10,485	7,660	717,573	4,403,158
Demand retained as a % of satisfied demand	81%	86%	77%	84%	91%	78%	98%	100%
Number of visits exported per week in peak period	1,689	1,653	2,220	1,583	1,053	2,123	14,474	3,451
Demand exported as a % of satisfied demand	19%	14%	23%	16%	9%	22%	2%	0%

Definition of satisfied demand – This represents the proportion of total demand that is met by the capacity at the sports halls from Chichester 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 Chichester.

4.1 **Key finding 4** is that 91% of the demand for sports halls from Chichester residents is met in 2023. This is lower than the regional average of 94% but similar to the England-wide average of 91%.

4.2 The proportion of satisfied demand in the neighbouring local authority areas is greater than in Chichester. Satisfied demand ranges from 92% in Arun to 96% in East Hampshire and Horsham.

4.3 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 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 at times when residents wish to participate.

Retained Demand

Definition of retained demand – A subset of the satisfied demand findings shows how much of Chichester residents' demand for sports halls is met at sports halls located within the District. This assessment is based on the travel time from Chichester sports halls and residents in the District participating at these sports halls.

4.4 **Key finding 5** is that 81% of Chichester's satisfied demand, is met at sports halls within the District.

Exported Demand

Definition of exported demand – The residue of satisfied demand, after retained demand, is exported demand. This is based on Chichester residents who live within the travel time of a sports hall located outside Chichester and use that hall.

4.5 Of Chichester's satisfied demand, 19% is exported and met at sports halls outside the District. This equates to 1,689 visits in the weekly peak period.

4.6 The data from the National FPM Run does not identify how much of Chichester'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	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
% of population without access to a car	13%	16%	9%	18%	11%	10%	16%	23%
% of total population within a 20-minute walk of a hall	26%	34%	44%	66%	53%	42%	51%	57%
% of 10% most deprived population within a 20-minute walk of a hall	-	1%	-	6%	-	-	2%	7%
% of demand satisfied when travelled:								
by car	89%	86%	89%	79%	86%	88%	82%	77%
on foot	6%	8%	8%	14%	10%	8%	11%	13%
by public transport	5%	6%	3%	8%	4%	4%	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

4.7 In Chichester only 13% 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%.

4.8 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.

4.9 It is estimated that 89% of journeys to sports halls by Chichester 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

4.10 Key finding 6 is that 26% of Chichester's residents are within a 20-minute walk of a sports hall. This is lower than the neighbouring local authority areas and the regional and national averages.

4.11 Residents southwest of the city centre can access the most sports halls within a 20-minute walk because they are close to Westgate Leisure Centre, Chichester College Sports Centre and Chichester High School (dark pink area in Map 4.1).

4.12 Residents in north Midhurst can walk to two sports hall sites within 20 minutes (medium pink area).

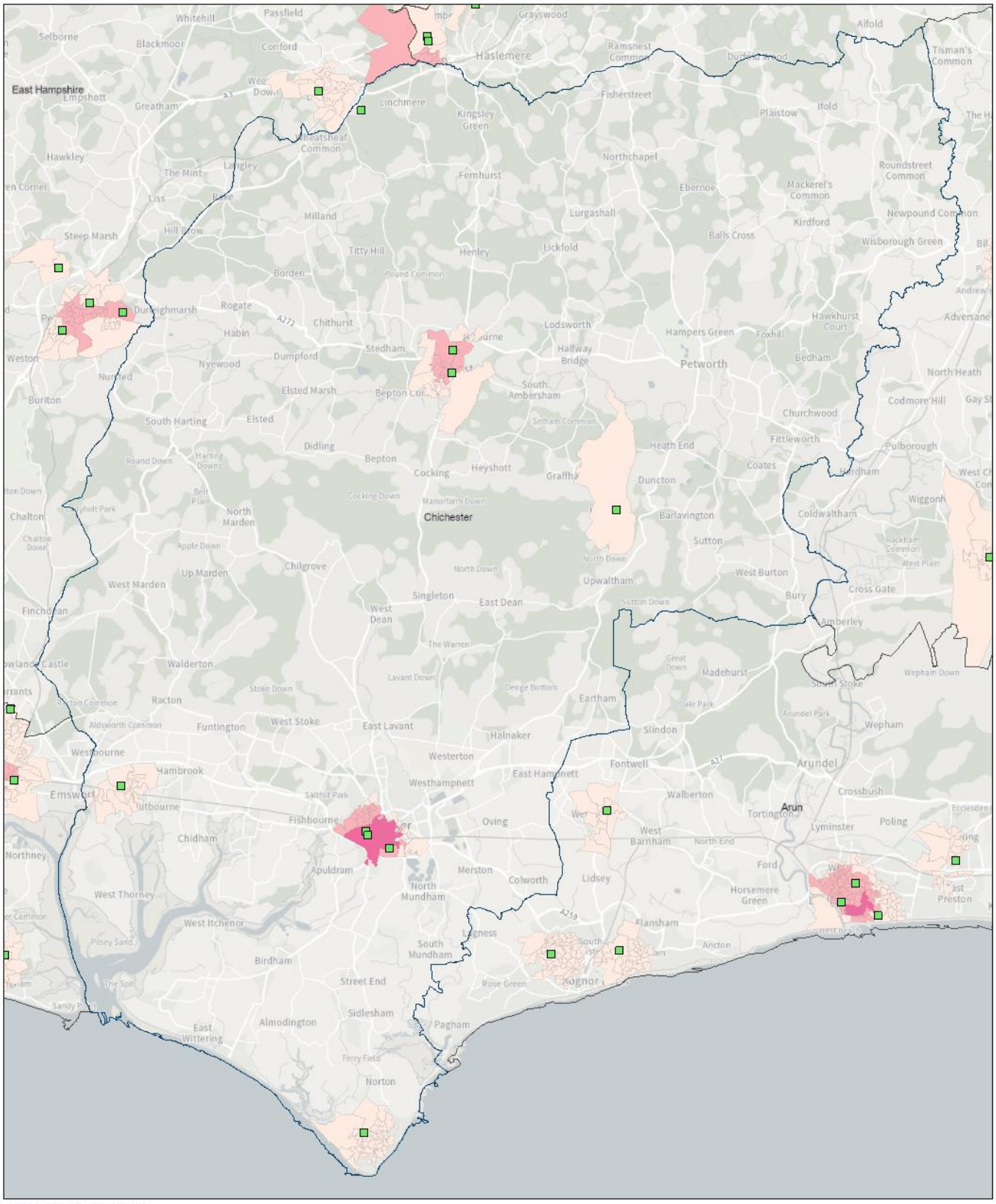
4.13 However, not all residents in these areas will walk to a sports hall and some will travel further. It is estimated that 6% of all journeys to sports halls are on foot.

Public Transport Access

4.14 Visits to sports halls by public transport are estimated to account for only 5% of all journeys.

Map 4.1: Walking Access to Sports Halls in 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.



5 Unmet Demand

Demand from Chichester residents not currently being met

Unmet Demand	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Total number of visits in the peak, not currently being met	881	1,024	447	560	536	489	46,407	435,421
Unmet demand as a % of total demand	9%	8%	4%	5%	4%	5%	6%	9%
Equivalent in courts - with comfort factor	3.0	3.5	1.5	1.9	1.8	1.7	157.6	1,479.0
% of 10% most deprived demand unmet	-	1%	-	1%	-	-	0%	1%
% of unmet demand due to:								
Facility too far away:	98%	97%	98%	97%	100%	100%	91%	74%
Without access to a car	69%	89%	79%	92%	84%	85%	82%	66%
With access to a car	29%	9%	19%	5%	16%	15%	9%	8%
Lack of facility capacity:	2%	3%	2%	3%	0%	0%	9%	26%
Without access to a car	1%	2%	1%	2%	0%	0%	7%	22%
With access to a car	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 accounts for 9% of demand and equates to 881 visits in the weekly peak period.

5.2 **Key finding 7** is that unmet demand totals the equivalent of 3.0 badminton 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, 70% 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

5.6 The greatest density of unmet demand is only 0.2 of a court per square kilometre in East Wittering and Bracklesham (blue squares in Map 5.1). The total unmet demand in the area is the equivalent of only half a badminton court.

5.7 The total unmet demand in Chichester city is 0.6 courts. Unmet demand in Selsey totals 0.3 courts across three square kilometres.

5.8 There is unmet demand of 0.1 courts in Tangmere and Petworth. Across the rest of the District, unmet demand is less than 0.1 of a court per square kilometre (purple squares).

Meeting Unmet Demand

> Definition of reachable unmet demand – 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 the map.

5.9 The location in Chichester where the most unmet demand of one court can be met (green squares in Map 5.2) is any of:

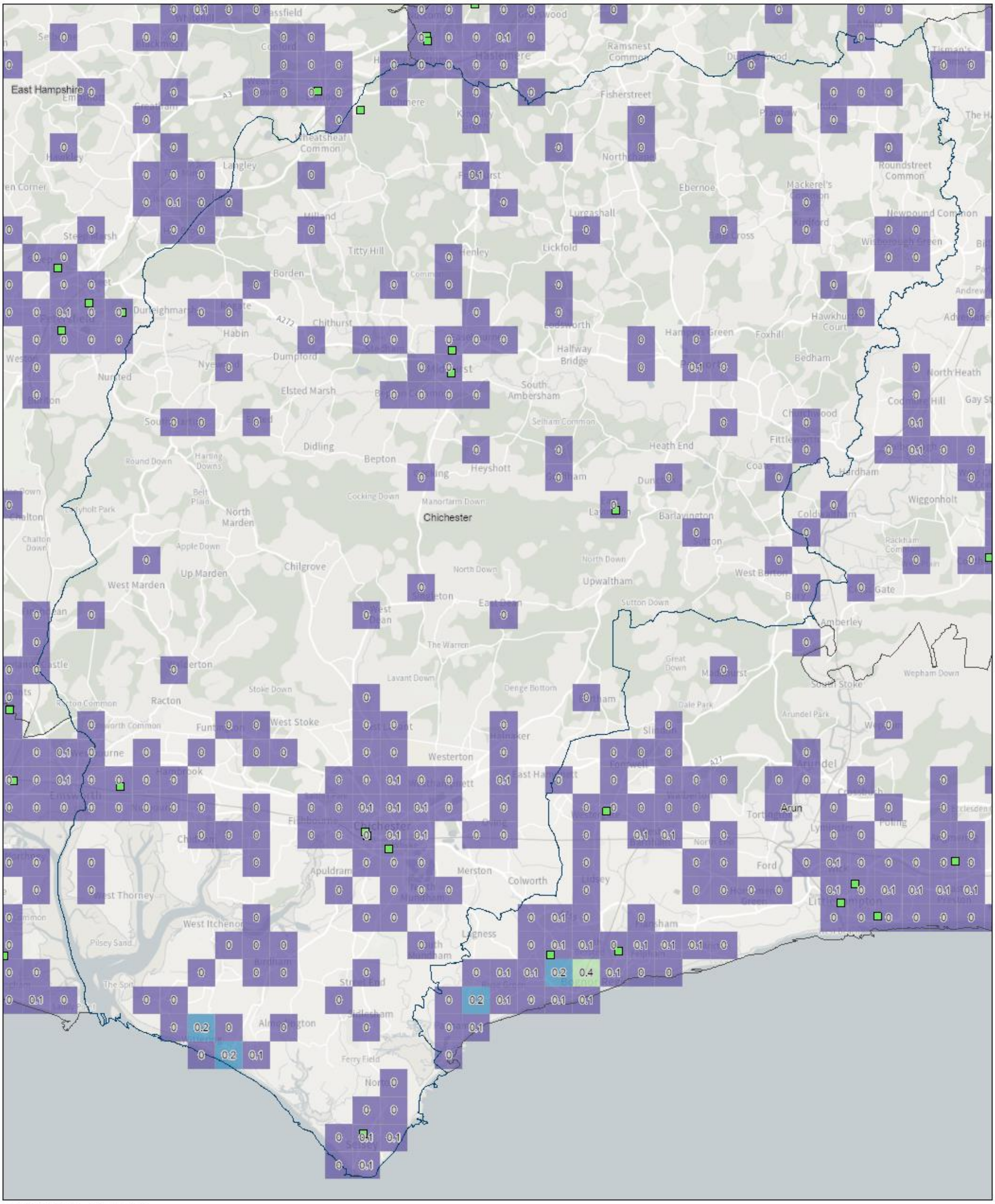
- Stockbridge (south of Westgate Leisure Centre)
- Southeast of Chichester city centre (north of Chichester High School)
- Portfield

5.10 However, this amount is insufficient to consider building a new sports hall at any of these locations. It does not cover future growth of demand, which would need to be considered separately in a bespoke report.

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 in 2023

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



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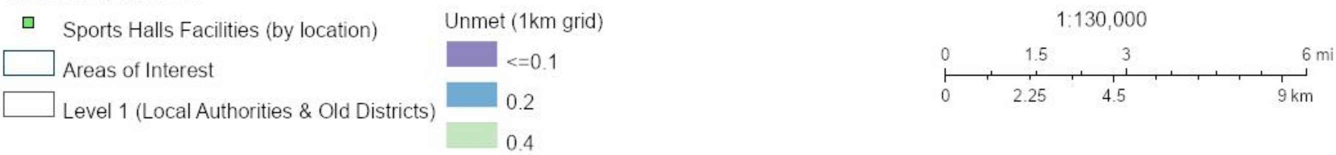
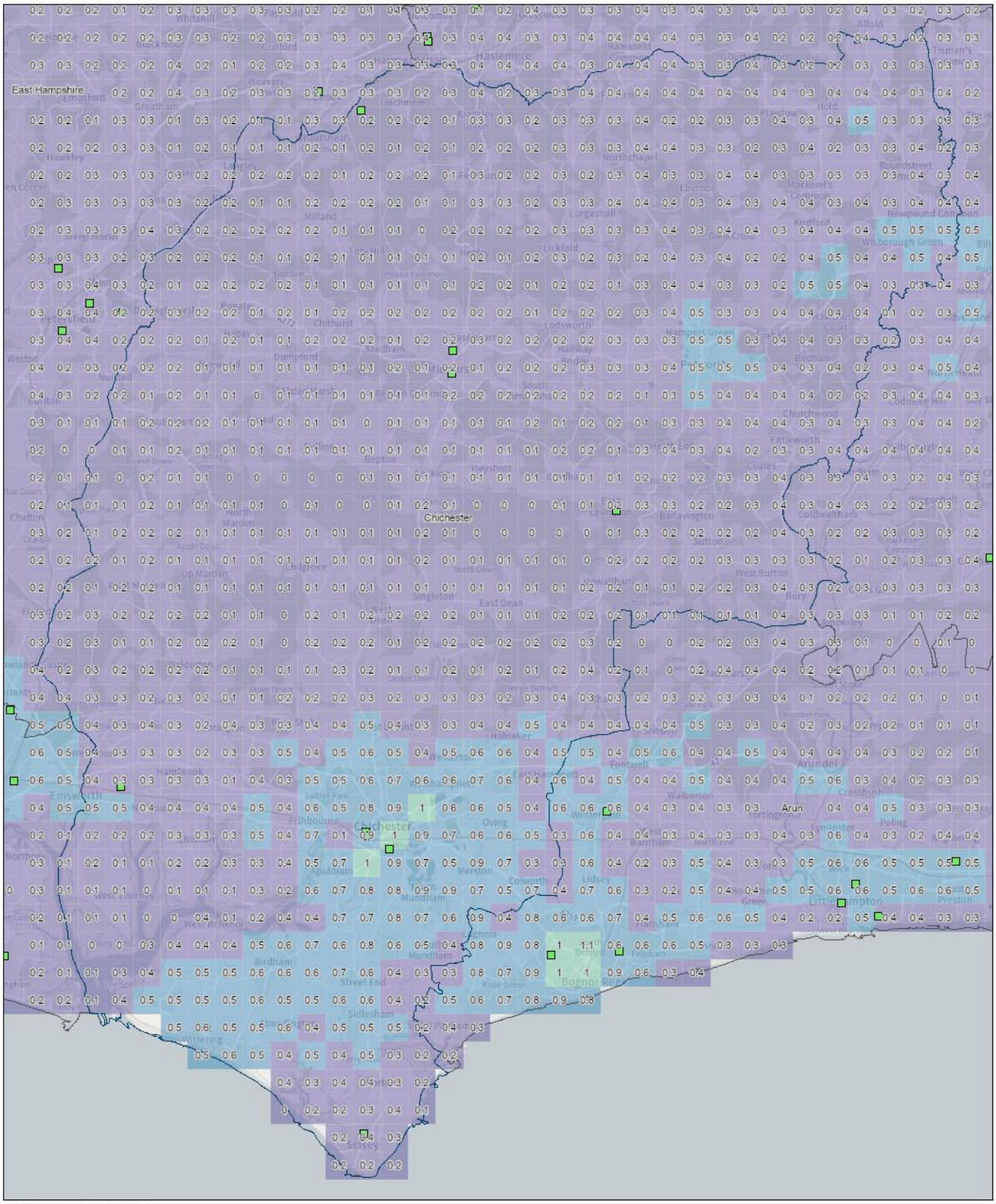


Map 5.2: Reachable Unmet Demand for Sports Halls in 2023

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	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Number of visits used of capacity per week in peak period	8,164	10,776	8,479	11,073	11,596	10,736	740,442	4,405,729
% of overall capacity of halls used	62%	81%	49%	74%	47%	55%	65%	71%

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.

District Used Capacity

6.1 **Key finding 8** is that the overall estimated used capacity of sports halls in Chichester during the weekly peak period is 62%.

6.2 The District-wide used capacity is lower than the regional and national proportions of 65% and 71% respectively. However, there is wide variation in the used capacity of the neighbouring local authority areas, ranging from 49% in East Hampshire to 81% in Arun.

6.3 Chichester's sports halls meet a total of 8,164 visits in the weekly peak period.

Used Capacity of Sports Halls in Chichester (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
Bourne Leisure Centre	Public	2003		44.5	99.5	1,424	76%	1,088
Chichester College Sports Centre	Edu. (in-house)	2004		41	47.8	1,312	62%	810
Chichester High School	Edu. (in-house)	2008		27.5	33.5	2,351	72%	1,693
Highfield and Brookham Schools	Edu. (in-house)	1892		12	20	384	11%	42
Midhurst Rother College	Edu. (in-house)	2006		41	46	1,312	17%	226
Seaford College	Edu. (in-house)	1978	2015	14	16	448	28%	125
The Academy Selsey	Edu. (in-house)	2009		25	25	800	100%	796
The Grange Community and Leisure Centre	Public	2014		45	92.5	2,874	43%	1,223
Westgate Leisure Centre	Public	1987	2005	45	100.5	2,160	100%	2,160

Site Used Capacity

6.4 Key finding 9 is that there is wide variation in the estimated used capacity of the individual sports hall sites in the weekly peak period, ranging from 11% to 100%. Westgate Leisure Centre and The Academy Selsey are estimated to be uncomfortably full (more than 80% utilised). This should be reviewed with the facility operators.

6.5 The variation in the estimated used capacity of the 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)
- Scale and capacity
- Location in relation to demand and competition from other sites
- Age of the facility and its 'attractiveness' weighting
- Imported demand

Public Leisure Centres

6.6 Westgate Leisure Centre is estimated to be 100% utilised at peak times and meets the most visits, at 2,160 in the weekly peak period. It is available for community use for 45 hours in the weekly period, therefore, there is no scope to increase capacity at peak times to reduce the proportion of used capacity to a comfortable level.

6.7 The Grange Community and Leisure Centre is only estimated to have 43% of capacity used at peak times but, because it has the largest capacity in the District, it meets the third highest number of visits (1,223).

6.8 Bourne Leisure Centre is estimated to have 76% of capacity used at peak times and meets the fourth largest number of visits (1,088).

6.9 Together the public leisure centres meet 55% of the capacity used in Chichester.

6.10 Public leisure centres meet more visits 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

Educational Sites

6.11 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 let out their sports halls to sports clubs or community groups on a termly basis, or for shorter periods

6.12 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.

6.13 The hours available for community use will influence the estimated used capacity of the sports halls sites. 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.

6.14 The Academy Selsey is estimated to be the most utilised educational sports hall at 100% used capacity at peak times. However, it is only available for 25 hours in the weekly peak period and has the third smallest capacity in the District. It meets 796 visits in the weekly peak period. The hours available for community use in the weekly peak period could be extended by up to 21 hours. This would increase the capacity to meet unmet demand in the area and reduced the proportion of capacity used to a comfortable level.

6.15 Both the educational sites in Chichester are estimated to be reasonably well utilised but not uncomfortably full (over 80% used capacity):

- Chichester College Sports Centre – 62%
- Chichester High School – 72%

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.

6.17 Chichester College Sports Centre and Chichester High School are close to Westgate Leisure Centre, and therefore, share the demand in the area. However, demand for sports halls is greatest in this area.

6.18 To assess their comparative attractiveness to customers, all the sports halls sites 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).

6.19 Westgate Leisure Centre is more utilised than the educational sites in Chichester because it is actively managed as a public leisure centre. The educational sites are managed in-house, and are therefore considered to be less attractive as they are more difficult to access.

6.20 To reduce the proportion of capacity used at Westgate Leisure Centre to a comfortable level, consideration should be given to working with Chichester College Sports Centre and Chichester High School to meet more demand through combined programming across the three sites. Chichester High School is available for community use for 27.5 hours in the weekly peak period. This could be increased to 41 hours to enhance capacity and meet more demand, while still maintaining the proportion of capacity used at a comfortable level.

6.21 The other educational sites are estimated to be under-utilised and meet the fewest visits in the weekly peak period:

- Highfield and Brookham Schools – 11%
- Midhurst Rother College – 17%
- Seaford College – 27%

6.22 All three sports halls are in the National Park area where demand is very low. Midhurst Rother College is also located close to The Grange Community and Leisure Centre, which is more attractive because it is newer and actively managed.

Imported Demand

Used Capacity	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Number of visits imported per week in peak period	896	450	1,089	2,619	1,111	3,076	22,869	2,571
Demand imported as a % of used capacity	11%	4%	13%	24%	10%	29%	3%	0%
Difference between visits imported and exported	-794	-1,203	-1,131	1,036	58	954	8,395	-880

Definition of imported demand – If residents of neighbouring local authority areas participate at a site in Chichester, their usage becomes part of the used capacity of Chichester's sports halls.

6.23 Imported demand accounts for 11% of used capacity in the District. Chichester's sports halls cater for 896 visits in the weekly peak period from residents of neighbouring local authorities.

6.24 Chichester exports 794 more visits than it imports in the weekly peak period.

7 Local Share of Facilities

Equity share of facilities

Local Share	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Local share of sports halls relative to demand in local area: <1 = poorer, >1 = better	0.90	0.60	0.97	0.55	1.26	0.80	0.78	0.67

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.

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 Chichester has a local share value of 0.90, meaning that there is not sufficient suitable provision to meet demand.

7.4 **Key finding 10** is that there is wide variation in local share across the District, with residents in the National Park area being able to reach plenty of supply, and residents in the south not having enough (see Map **7.1**).

7.5 Local share is best around Midhurst at 2.3 (purple squares). Demand is low in the area but has access to the largest and newest public sports hall site, The Grange Community and Leisure Centre, as well as Midhurst Rother College.

7.6 Local share is good across the National Park area, at more than 1.0 (green and blue squares).

7.7 In Southbourne, around Bourne Leisure Centre, local share is 1.0 (light green squares), which means that there is sufficient suitable supply to meet the demand.

7.8 Local share is poor in the northeast tip of the District. It is poorest in Durfold Wood and Plaistow, at 0.5 (red squares), but the rest of the area has values of 0.8 and 0.9 (yellow squares).

7.9 Local share is poor around Chichester city centre at 0.6 (orange squares), which means that there is insufficient suitable supply to meet the high demand.

7.10 Local share is poorest in the south of the District along the coast, at 0.4 and 0.5 (red squares). Demand is high in this area and cannot reach enough suitable provision. The Academy Selsey is only open for 25 hours in the weekly peak period and is estimated to be fully utilised. If the hours available for community use could be extended, then local share would improve in this area.

Comparative Measure of Provision

Share	Chichester	Arun	East Hampshire	Havant	Horsham	Waverley	South East Region	England
Badminton courts per 10,000 population	3.9	2.5	5.4	4.5	5.5	7.1	4.5	4.0

7.11 A comparative measure of sports hall provision is badminton court equivalents per 10,000 population.

7.12 Chichester has 3.9 courts per 10,000 population. This is the second lowest in the study area, and is lower than the regional average of 4.5 courts and the national average of 4.0 courts.

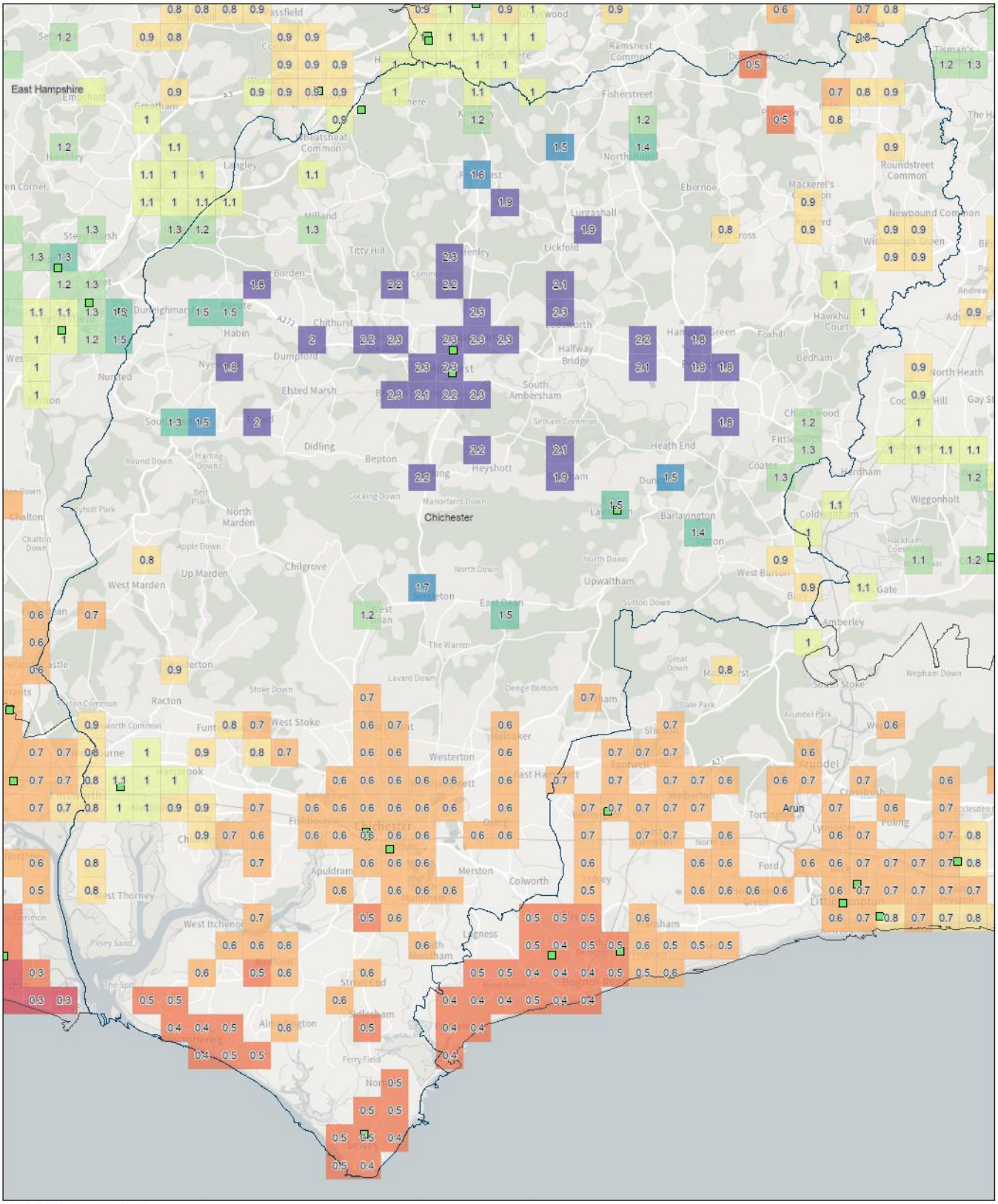
7.13 Of the neighbouring local authorities, Waverley has the highest level of provision per 10,000 population at 7.1 courts, and Arun has the lowest at 2.5 courts.

7.14 **The findings on 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.**

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

Map 7.1: Local Share of Sports Halls in 2023

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



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Sports Halls Facilities (by location)

Areas of Interest

Level 1 (Local Authorities & Old Districts)

Local Share (badminton courts)

0.2 - 0.3

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

1:130,000

0 1.5 3 6 mi

0 2.25 4.5 9 km

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
Bishop Luffa C of E School	Main	Private use
	Activity	Private use
Bourne Community College	Activity	Private use
Boxgrove Village Hall and Community Centre	Activity	Principal hall too small
Bracklesham Barn	Activity	Principal hall too small
Chichester High School For Girls (closed)	*Main*	*Closed*
	Activity x2	*Closed*
Chidham Parochial Primary School	Activity	Principal hall too small
Down View Park	Activity	Principal hall too small
Easebourne C Of E Primary School	Activity	Principal hall too small
East Wittering Community Primary School	Activity	Private use
Fernhurst Village Hall	Activity	Principal hall too small
Grange Centre (Midhurst) (closed)	*Main*	*Closed*
	Activity	*Closed*
Hampers Green Community Centre	Activity	Principal hall too small
Herbert Shiner School (closed)	*Activity x2*	*Closed*
Kelsey Hall	Activity	Principal hall too small
Lavant House (closed)	Activity	Closed
Lodsworth Recreation Ground	Activity	Principal hall too small
Oakwood School	Activity	Private use
Selsey Centre	Activity	Principal hall too small
Sidlesham Primary School	Activity	Private use
St Anthony's School	Activity	Principal hall too small
The Academy Selsey	*Activity*	*Closed*
The March C of E Primary School	Activity	Private use
University of Chichester (Bishop Otter Campus)	Main	Private use
	Activity	Private use
Westbourne House Boarding School	Main	Private use

Appendix 2: Model Description, Inclusion Criteria and Model Parameters

Included within this Appendix are the following:

- Model Description
- Facility Inclusion Criteria
- Model Parameters

Model Description

1. Background

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

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 carried out 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 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.

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 or hall, or number of pitches), and how many hours the facility is available for use by the community.

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

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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 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.

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

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

[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 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.'

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 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.

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. 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 = 8 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 predominantly 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. Following on from the comfort factor section, here is more guidance on utilised capacity.

9.2. 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.

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

9.4. 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

9.5. 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.'

10. Travel Times

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

10.2. 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.

10.3. 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.

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, 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 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%

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 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%

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

Sports Halls Parameters

<table>
<tr><td>At One Time Capacity</td><td>32 users per 4-court hall,
15 users per 144 square meters of ancillary hall.</td></tr>
<tr><td>Coverage Maps</td><td>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.</td></tr>
<tr><td>Duration</td><td>60 minutes</td></tr>
<tr><td>Percentage Participation

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

Proportion in Peak Period</td><td>Weekday: 9:00 to 10:00, 17:00 to 22:00
Weekend: 08:00 to 16:00
Total: 46 hours

62%</td></tr>
</table>