

Facilities Planning Model Assessment of
Sports Hall Provision for
Cotswold District Council

Bespoke Report

8 May 2026

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EXECUTIVE SUMMARY

Introduction

- 0.1 Cotswold District Council (also referred to as Cotswold or the District) is reviewing its current provision of sports halls and assessing the future demand and level of provision required to 2043.
- 0.2 This report has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool. The FPM study is a quantitative, accessibility and spatial assessment of the supply, demand and access to sports halls.
- 0.3 The FPM modelling runs are to provide the following:
- Run 1 – baseline assessment of provision in 2025
 - Run 2 – forward assessment of demand for sports halls and its distribution, based on the projected changes in population between 2025 and 2043
- 0.4 The main report sets out the full set of findings under each of the seven assessment headings.
- 0.5 The next section of the report provides the headline strategic overview, and the key findings and interventions arising from the FPM study on supply, demand and accessibility.

Headline Strategic Overview

- 0.6 The headline strategic overview is that the weekly peak period demand for sports halls can be met by the available supply in both 2025 and 2043.
- 0.7 There is an increase in demand to 2043 but no change in the very large proportion of demand met. Cotswold's demand is significantly below the available supply in the weekly peak period in both years.
- 0.8 The increase in demand and its distribution to 2043 means that Cirencester Leisure Centre is estimated to be uncomfortably busy (more than 80% utilised) in the weekly peak period in 2043. This is for the following reasons:
- Demand is highest in Cirencester in both years.
 - The largest housing growth sites are in the Cirencester area.
 - The centre opened in 2006 and, therefore, is highly attractive to residents.
 - In 2025, 29% of the imported demand to Cotswold is from Stroud and 28% in 2043. Demand is high in the centre of Stroud and to the border with Cotswold. The A419 provides access for some Stroud residents to the sports hall sites in Cirencester.
- 0.9 All the other sports halls in Cotswold are estimated to be under-utilised in 2025 and 2043.

- 0.10 The educational sector provides almost all the sports hall sites in the District. There is a high commitment to community use and this needs to be protected. However, because educational sites are not available during weekday daytimes, these sports halls do not meet the needs of the economically inactive, retired, stay at home carers and home workers who would access the facilities at these times.

Key Findings

- 0.11 The key findings that underpin the headline strategic overview are as follows:

1. The total supply in Cotswold in 2025 and 2043 is the equivalent of 64.4 badminton courts, of which 43.4 courts are available for community use in the weekly peak period. The unavailable supply equates to 33% of the total supply
2. In 2025 and 2043 the ten educational sports halls provide 80% of the available capacity. The public leisure centre provides 14%, and Fire Service College Leisure Club provides 6%.
3. Cotswold's population is projected to increase by 15% between 2024 and 2043, resulting in an 8% increase in demand for sports halls. The smaller increase in demand compared with population growth is because of the ageing of the population in Cotswold between 2025 and 2043. There will be fewer residents in the age bands with the highest sports hall participation (0-15 year olds and 16-24 year olds) in 2043 than in 2025. Cotswold has a larger proportion of residents over 65 years old than the national average.
4. Cotswold's demand is the equivalent of 41% of the District's available supply in 2025, increasing to 44% in 2043.
5. It is estimated that 4% of journeys by Cotswold residents to sports halls are made by public transport or bicycle in 2025 and 2043. This is less than the regional proportion of 6% and the national proportion of 9% in both years.
6. In 2025 and 2043, 96% of Cotswold's demand is met. The number of visits met in the weekly peak period increases from 6,227 in 2025 to 6,714 in 2043 because of the increase in demand in the District.
7. Most of Cotswold's satisfied demand is met within the District, at 75% in 2025 and 78% in 2043. In terms of visits, 4,661 are retained in the weekly peak period in 2025, and 5,212 in 2043.
8. In both 2025 and 2043 unmet demand is 0.9 courts, accounting for 4% of demand. In both years all the unmet demand is too far from a facility.
9. The estimated used capacity of Cotswold's sports halls is 40% in the weekly peak period in 2025, and 44% in 2043. However, Cirencester Leisure Centre is estimated to be 79% utilised at peak times in 2025, and 92% in 2043.

Interventions and Next Steps

- 0.12 Cotswold has sufficient provision of sports halls to meet demand in 2025 and 2043. The increase in demand can be accommodated by the current supply. There are sports halls in all the main settlements.
- 0.13 The strategic interventions are:
- Increasing usage at educational sports halls in Cirencester to provide a better overall balance between supply and demand
 - Protecting the educational supply for community use
 - Modernisation of the stock
- 0.14 Demand for sports halls is highest in Cirencester in both years. The largest housing growth sites are located around Cirencester. Cirencester Leisure Centre has the largest sports hall in the District and the only six-court hall. As the only public leisure centre in Cotswold, it is the most attractive site in the District to residents. The centre is available for the maximum 46.0 hours in the weekly peak period; therefore, there is no scope to increase capacity and reduce the proportion of used capacity to a comfortable level.
- 0.15 The intervention is to try and increase access at the educational sites in Cirencester by improving the availability of the sports halls to better meet demand in the area. It is suggested that Cotswold District Council investigates increasing community use at one or two of these sites.
- 0.16 There are four educational sports hall sites in Cirencester. In terms of the FPM findings, the most beneficial sites at which to increase access are:
- Cirencester College
 - Most recent sports hall to open in 2015
 - Four-court hall with dimensions suitable for club development
 - Located in west Cirencester
 - Currently only available for 5.0 hours in the weekly peak period
 - Cirencester Kingshill School
 - Opened in 2000
 - Four-court hall and activity hall
 - Only site in east Cirencester
 - School actively promotes community use but currently only available for 17.5 hours in the weekly peak period
- 0.17 Community Use Agreement (CUA) provides the framework to protect the current supply and any new or replacement educational sports halls. If not already in place, a CUA should be negotiated and agreed.

- 0.18 Sport England will advise on the requirements as part of the planning process for any new or replacement sports hall. Once a CUA has been put in place, it is essential that the Council monitors its actual delivery.
- 0.19 Sport England's website provides a free resource, [Use our School](#), to support educational sites opening up their facilities or increasing access for community use.
- 0.20 Six sports hall sites opened before 2000, and two educational sites have been modernised. Four sites opened between 2000 and 2010, and none have been refurbished. Cirencester Leisure Centre is 19 years old in 2025 and 37 years old in 2043.
- 0.21 The scale of the projected increase in demand will increase the usage of the sports halls and their maintenance costs. To maintain the attractiveness and meet demand within the District, Cirencester Leisure Centre will require modernisation. Furthermore, the Council may wish to consider investing in further modernisation of the educational stock in return for continuing committed community use.
- 0.22 These interventions and suggested next steps are based on the FPM findings and should be considered as a key part of the all-round evidence base for the provision of sports halls and the Council's strategy. Combining the FPM assessment with the wider review of provision will lead to well considered options on the best ways to meet the projected demand for sports halls up to 2043 and beyond.

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1 INTRODUCTION

- 1.1 Cotswold District Council (also referred to as Cotswold or the District) is reviewing its current provision of sports halls and assessing the future provision required to 2043.
- 1.2 This report has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool. The FPM study is a quantitative, accessibility and spatial assessment of the supply, demand and access to sports halls.
- 1.3 The strategic drivers for Cotswold District Council are to understand:
- How the existing supply of sports halls meets demand in 2025 and 2043
 - The impact that population change and residential development have in changing the demand for sports halls and its distribution up to 2043
- 1.4 The outputs from the FPM assessment will inform:
- Cotswold District Council's strategic planning review of sports halls provision and future strategy
 - An evidence base that contributes to the development of planning policy for the provision of indoor sports facilities
- 1.5 The sequence of work is based on assessments known as runs, and these are set out in the Executive Summary.

The Study Area

- 1.6 The assessments include the sports halls and population in Cotswold District Council and the neighbouring local authority areas, which comprise study area (see Map 1.1).
- 1.7 A customer's choice of sports hall does not respect local authority boundaries. There may be management and possibly pricing incentives for customers to use sports facilities in their local authority area. Other factors that influence the choice of sports hall include:
- How close the venue is to where residents live or work
 - Other facilities at the same site, such as a gym or studio
 - Programming of the hall with activities that appeal to residents and are available at times that fit with the lifestyle of residents
 - Age and condition of the facility and inherently its attractiveness
- 1.8 Increasingly, the quality of sports halls and their offer are of more importance to residents in their choice of venues. New facilities will have a significant draw because of the enhanced quality of the venues.
- 1.9 In determining the position across Cotswold, it is important to take full account of the sports halls and population in neighbouring local authority areas. The most attractive facility for some Cotswold residents may be outside the District (known as exported demand). For

residents of neighbouring local authorities, their most attractive sports hall may be inside Cotswold (known as imported demand).

- 1.10 To take account of these factors, a study area is established that places Cotswold District Council at its centre and includes the neighbouring local authority areas.

Map 1.1: Study Area for Cotswold Sports Halls Assessment



Report Structure, Content and Sequence

- 1.11 The findings for the Cotswold assessment are set out in a series of tables for both runs. This allows a 'read across' to see the specific impact of changes between Runs 1 and 2 and builds up the picture of change.
- 1.12 The headings for each table are:
- Supply
 - Demand
 - Accessibility
 - Satisfied Demand
 - Unmet Demand
 - Used Capacity
 - Local Share
- 1.13 The terms listed above are defined beneath the tables.
- 1.14 To support the findings, this report also includes maps that show sports hall locations, demand, deprivation, driving and walking coverage, public transport access, exported satisfied demand, unmet demand, imported used capacity and local share.
- 1.15 Where valid, the findings for neighbouring local authorities are set out. A commentary is provided on these comparable findings. For example, some local authorities like to know how their findings on proportion of met demand compare with those of neighbouring local authorities.
- 1.16 The key findings in each of the sections are numbered and highlighted in bold typeface.
- 1.17 The facilities excluded from the study, with explanations, are listed in Appendix 1. Details of the sports halls in the neighbouring local authority areas included in the assessment are set out in Appendix 2. The FPM and its parameters are described in Appendix 3.
- 1.18 All maps for the study are provided in a separate document as layered PDFs.

2 SPORTS HALL SUPPLY

Cotswold has an extensive supply of sports halls. There are ten four-court halls, of which seven have dimensions suitable for club development.

Cirencester Leisure Centre is a six-court hall, and is the largest the District. It has the largest capacity of any site in Cotswold.

The educational sector is the major provider, having ten of the 12 sites. There is a high commitment to community use, with seven educational sites available for between 22.0 and 44.0 hours in the weekly peak period.

The educational supply needs to be protected for community use.

The stock in Cotswold is ageing. Six sports hall sites opened before 2000, of which two have been modernised. Four sites opened between 2000 and 2010, and none have been refurbished.

Table 2.1: Supply of Sports Halls in Cotswold by Run

Supply	Run 1	Run 2
Cotswold	2025	2043
Number of sports halls	17	17
Number of sports hall sites	12	12
Supply in badminton court equivalents	64.4	64.4
Supply in courts scaled with hours available in peak period	43.4	43.4
Unavailable supply in the weekly peak period	33%	33%
Supply in visits per week in peak period	15,968	15,968
Average age of all sites	26	44
Average age of public leisure centres	19	37

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

Weekly peak period – This is when most visits take place and when users have most flexibility to visit. The peak period for sports halls is one hour on weekday mornings, five hours on weekday evenings and eight hours on weekend days. This gives a total of 46 hours per week. The modelling and recommendations are based on the ability of the public to access facilities during this weekly peak period.

- 2.1 In 2025 and 2043, 17 sports halls are modelled across 12 sites.
- 2.2 The facilities excluded from the study are listed in Appendix 1.

Table 2.2: Details of Sports Halls in Cotswold included in the Runs

Site	Provider	Facility Type	Dimensions (m)	Area (sqm)	Peak Hours	Total Hours	Capacity (visits)	Year Built	Year Refurb
Cirencester Leisure Centre	Public	6-court	34 x 27	918	46	100.5	2,208	2006	
Cotswold Leisure Chipping Campden	Educational (3rd party)	4-court	32 x 18	576	39.5	46.5	2,005	1996	
		Activity	18 x 10	180	39.5	46.5			
SWR Leisure *	Educational (3rd party)	4-court	34.5 x 20	690	37	47	1,878	1993	2013
		Activity	18 x 10	180	37	47			
Cirencester College	Educational (in-house)	4-court	34.5 x 20	690	5	35	160	2015	
Cirencester Deer Park School	Educational (in-house)	4-court	35 x 19	665	32.5	44.5	1,649	1992	
		Activity	18 x 10	180	32.5	44.5			
Cirencester Kingshill School	Educational (in-house)	4-court	34 x 18	612	17.5	17.5	888	2000	
		Activity	18 x 10	180	17.5	17.5			
Farmor's Sports Centre	Educational (in-house)	4-court	34.5 x 20	690	22	48	704	1990	
Rendcomb College	Educational (in-house)	4-court	34.5 x 20	690	34	36	1,088	1994	2008
Royal Agricultural University	Educational (in-house)	4-court	34.5 x 20	690	43	90	1,376	2014	
The Cotswold School	Educational (in-house)	5-court	40.6 x 21.35	867	14	18	1,644	2009	
		Activity	18 x 17	306	34	35			
Westonbirt School and Leisure Centre	Educational (in-house)	4-court	34.5 x 20	690	44	92	1,408	2005	
Fire Service College Leisure Club	Other (sport club)	4-court	34.5 x 20	690	30	79	960	1977	

* SWR Leisure (Sir William Romney's Leisure Ltd) was the former operator of a leisure centre in Tetbury. The company ceased operating and closed the facility in July 2019. The leisure centre has since re-opened for community use and is operated in-house by Sir William Romney's School.

- 2.3 **Key finding 1** is that the total supply in Cotswold in both 2025 and 2043 is the equivalent of 64.4 badminton courts, of which 43.4 courts are available for community use in the weekly peak period. The unavailable supply equates to 33% of the total supply.

Providers

- 2.4 Cirencester Leisure Centre is a public leisure centre. Public leisure centres are available for use to all residents, and provide recreational pay-and-play as well as organised team and individual sports activities.
- 2.5 There are ten sports hall sites provided by the educational sector. Eight are managed in-house and, therefore, are responsible for promoting community use. Promotion may be passive, whereby the school responds to booking requests, or dynamic, with the school working alongside sports clubs to encourage community use.
- 2.6 Two sports hall sites were modelled as being operated by external providers:
- Cotswold Leisure Chipping Campden is a dual-use site with a school. The centre is operated by Freedom Leisure on behalf of Cotswold District Council.
 - SWR Leisure (Sir William Romney's Leisure Ltd) was the former operator of a leisure centre in Tetbury, located at Sir William Romney's School. The company ceased trading and closed the facility in July 2019. The centre has re-opened and is now operated in-house by Sir William Romney's School.
- 2.7 Given that nearly all the sports hall stock is provided by the educational sector, this may restrict residents who require access during weekday daytimes, for example, stay-at-home parents, home workers, and the unemployed or retired. This places greater reliance on the more limited public leisure centre stock for these residents.
- 2.8 There is one other provider; Fire Service College Leisure Club. The centre is operated by Capita, primarily serving College staff and trainees. It is available for local sports clubs, community groups and commercial users to hire.

Scale

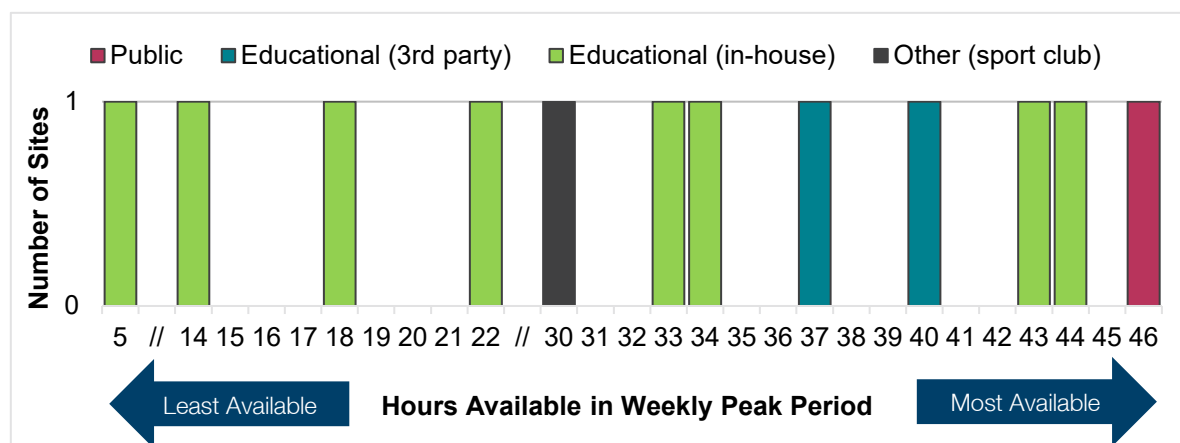
- 2.9 The largest sports hall is Cirencester Leisure Centre, which has a six-court hall. Six-court halls can accommodate multiple sports activities at same time. The second largest site is The Cotswold School, which has a five-court hall with unusual dimensions of 40.6m x 21.35m, and an activity hall.
- 2.10 There are ten four-court halls, of which:
- Seven have dimensions of 34.5m x 20m. This is the size that Sport England and the National Governing Bodies for hall sports recommend for a four-court hall. These dimensions can cater for all hall sports at the community level of participation and also meet the requirements for hall sports club development.
 - The dimensions of the other three halls are slightly smaller at 35m x 19m, 34m x 18m, and 32m x 18m. These sizes of sports hall, while meeting the requirements for most

indoor hall sports at the community level of participation, have less space between and behind individual courts. This may prohibit use of these sports halls if they do not meet the requirements for competition play.

- 2.11 There are five sites which have a main hall and an activity hall. An activity hall is a flexible space for multiple sports that is smaller than the equivalent of three badminton courts, and may or may not have line markings. Four of the activity halls have dimensions of 18m x 10m, and one has dimensions of 18m x 17m.
- 2.12 Where a sports hall site has a main hall and an activity hall, the activities for the two halls are programmed together. The main hall can accommodate big/high space activities such as basketball and badminton, which have low participant numbers at-one-time. The activity hall can accommodate smaller space activities such as martial arts, which have higher participant numbers.
- 2.13 The at-one-time capacity of a main hall with marked courts is eight people per badminton court (the 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.

Availability

Chart 2.1: Availability of Cotswold Sports Halls by Provider

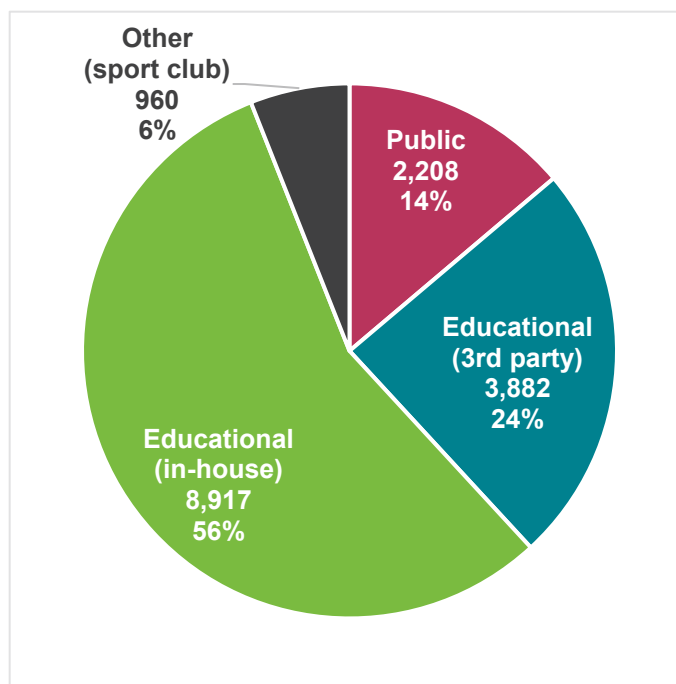


- 2.14 Cirencester Leisure Centre is available for the maximum 46.0 hours in the weekly peak period, with no scope to increase availability and capacity at peak times.
- 2.15 There is a high commitment to community use at six of the educational sites, with availability of between 32.5 hours and 44.0 hours in the weekly peak period. Availability is best in the weekly peak period at Westonbirt School and Leisure Centre at 44.0 hours, and Royal Agricultural University at 43.0 hours.
- 2.16 This is very good availability, as it is unusual for educational sports halls managed in-house to be available for more than 41.0 hours in the weekly peak period because they are not available for community use during weekday daytimes.

- 2.17 Sport England has produced a resource to support schools in opening their facilities for community use in non-school hours. The resource covers how to get started, who can help, operating models, legal and governance, finance, marketing, operating safely and safeguarding, and can be found here: <https://www.sportengland.org/funding-and-campaigns/use-our-school>.
- 2.18 The resource can be used to support discussions with schools to open their sites for community use, either for the first time or to extend the available hours.
- 2.19 Fire Service College Leisure Club is available to hirers for up to 30.0 hours in the weekly peak period.

Capacity

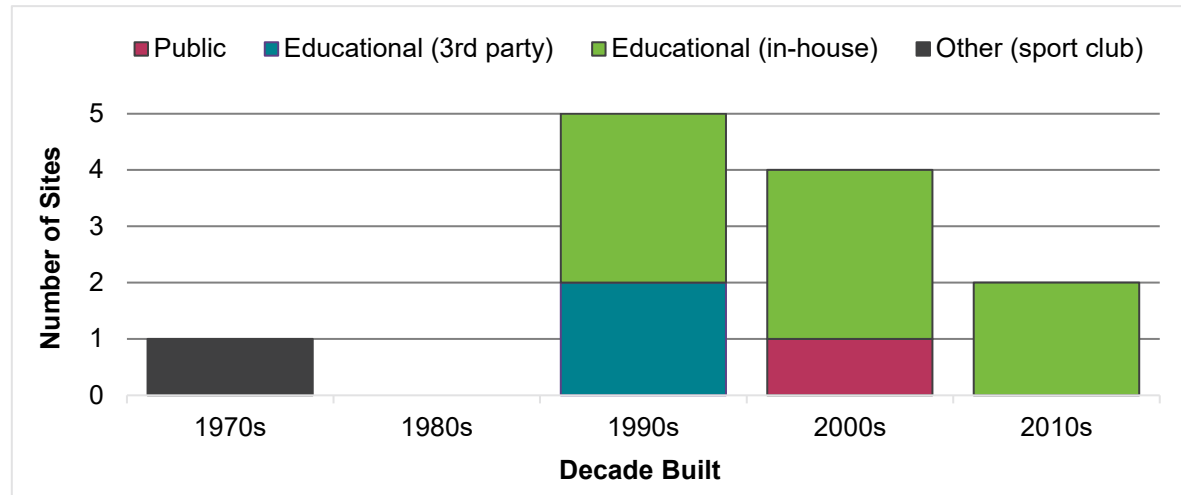
Chart 2.2: Proportion of Available Hall Space by Provider in 2025 and 2043



- 2.20 **Key finding 2** is that the ten educational sports halls provide 80% of the available capacity in both 2025 and 2043. The public leisure centre provides 14%, and Fire Service College Leisure Club 6%, of the remaining capacity.
- 2.21 Cirencester Leisure Centre has the largest capacity in Cotswold and can accommodate a total of 2,208 visits in the weekly peak period.
- 2.22 Cotswold Leisure Chipping Campden has the second largest capacity, and the largest capacity of the educational sites, at 2,005 visits in the weekly peak period.
- 2.23 Cirencester College has the smallest capacity at 160 visits in the weekly peak period. This site also has the lowest availability at 5.0 hours in the weekly peak period.

Age

Chart 2.3: Decade Built of Sports Halls in Cotswold by Provider



- 2.24 The average age of all the sports hall sites is 26 years in 2025, and 44 years in 2043. Cirencester Leisure Centre is 19 years old in 2025, and 37 years old in 2043.
- 2.25 The oldest sports hall is Fire Service College Leisure Club, which opened in 1977 and is unmodernised. The most recent sports hall to open is Cirencester College in 2015.
- 2.26 Six sports hall sites opened before 2000, and two of these have been modernised. Four sites opened between 2000 and 2010, and none have been refurbished.
- 2.27 There is an increasing need for modernisation of the sports halls.
- 2.28 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

Sports Hall Locations

- 2.29 Nine of the sports hall sites are located in the southern half of the District (see Map 2.1). There are four sports hall sites in Cirencester.
- 2.30 There are several sports hall sites in Cheltenham and Swindon that are located close to the border with Cotswold.

3 DEMAND FOR SPORTS HALLS

Demand for sports halls in Cotswold increases by 8% to 2043, which is the equivalent of 1.7 courts.

Demand is highest in Cirencester, followed by Tetbury, Fairford, Moreton-in-Marsh and Stow-on-the-Wold.

Demand increases in all local authorities in the study area to 2043. The largest increase is in South Gloucestershire at 11.8 courts, representing a 15% increase from 2025.

Table 3.1: Demand for Sports Halls in Cotswold by Run

Demand	Run 1	Run 2
Cotswold	2025	2043
Population	94,598	108,344
Visits demanded in weekly peak period	6,484	6,992
Demand in courts with comfort factor included	22.0	23.8
% of demand in the 10% most deprived LSOAs nationally	0%	0%

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 number of 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 November 2023 and are set out in Appendix 3.

- 3.1 Demand is calculated from the resident population. Cotswold District Council provided its population forecast for 2043. The geographical distribution of the population in the FPM for 2043 includes housing growth sites, the details of which were provided by the Council that were known at the time of modelling. There are extensive housing growth sites to the south of Cirencester (see Map 3.1).
- 3.2 The latest development trajectory for Cotswold to 2043 has more dwellings than modelled and there are changes to the locations of the sites. However, the geographical distribution is similar to what was modelled and the differences per area are smaller when converted into demand. The total population forecast for Cotswold remains the same from the Office for National Statistics 2022-based subnational projection. Therefore, the changes in housing growth will not have a significant impact on the overall findings of this report.
- 3.3 **Key finding 3** is that Cotswold's population is projected to increase by 15% between 2024 and 2043, resulting in an 8% increase in demand for sports halls. The smaller increase in demand compared with population growth is because of the ageing of the population in

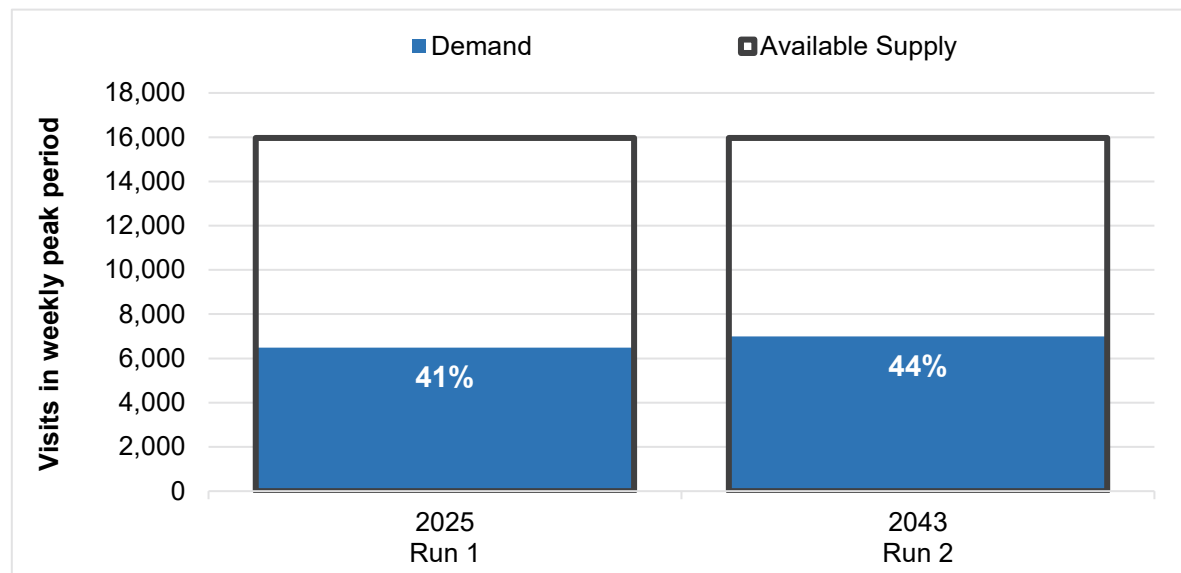
Cotswold between 2025 and 2043. There will be fewer residents in the age bands with the highest sports hall participation (0-15 year olds and 16-24 year olds) in 2043 than in 2025. Cotswold has a larger proportion of residents over 65 years old than the national average.

3.4 The rate and frequency of sports hall participation is assumed to be unchanged between the two years (for participation rates and frequency, see Appendix 3: Sports Halls Parameters).

3.5 Of Cotswold's population (source: ONS Census 2021):

- Residents aged 65 and over represent 28% of the total population compared to the national average of 20%
- Disabled residents account for 16% compared to the national average of 17%
- Working from home residents are 39% compared to the national average of 32%

Chart 3.1: Demand as a Proportion of Available Supply in Cotswold by Run



3.6 **Key finding 4** is that Cotswold's demand is the equivalent of 41% of its available supply in 2025, increasing to 44% in 2043.

Demand in the Study Area

3.7 Demand is projected to increase in all neighbouring local authorities. Cotswold has the third smallest increase in demand in courts to 2043.

3.8 The largest increase in demand in courts is in South Gloucestershire at 11.8 courts, representing a 15% increase in demand. Cheltenham has the smallest increase at 0.3 courts, and is a 1% increase.

Table 3.2: Demand for Sports Halls by Area and Run

Demand in Court Equivalents Considering a 'Comfort' Factor	Run 1	Run 2	Change 2025 to 2043	
Area	2025	2043	Courts	% Change
Cotswold	22.0	23.8	1.7	8%
Cheltenham	30.2	30.5	0.3	1%
South Gloucestershire	77.6	89.5	11.8	15%
Stratford-on-Avon	34.4	40.9	6.5	19%
Stroud	30.3	33.6	3.2	11%
Swindon	61.0	61.4	0.4	1%
Tewkesbury	24.8	28.5	3.7	15%
Vale of White Horse	37.0	42.2	5.2	14%
West Oxfordshire	29.1	31.7	2.6	9%
Wiltshire	126.8	130.5	3.7	3%
Wychavon	33.0	37.0	4.0	12%

Geographical Distribution of Demand

2025

- 3.9 Demand is highest in Cirencester, followed by Tetbury, Fairford, Moreton-in-Marsh and Stow-on-the Wold (see Map 3.2).
- 3.10 Demand in each of the main settlements is as follows:
- Cirencester town and surrounding area – 4.8 courts across 16 square kilometres (there are five sports hall sites in this area, including Cirencester Leisure Centre)
 - Tetbury – 1.5 courts across five square kilometres (SWR Leisure is located in this area)
 - Moreton-in-Marsh – 1.0 courts across three square kilometres (Fire Service College Leisure Club is located east of this area)
 - Fairford – 0.8 courts across five square kilometres (Farmor's Sports Centre is located in this area)
 - Stow-on-the-Wold – 0.8 courts across five square kilometres (The Cotswold School is located in this area)
 - Chipping Campden – 0.5 courts across five square kilometres (Cotswold Leisure Chipping Campden is located in this area)
- 3.11 Outside of these areas demand is less than 0.5 courts per square kilometre (dark blue and purple squares).

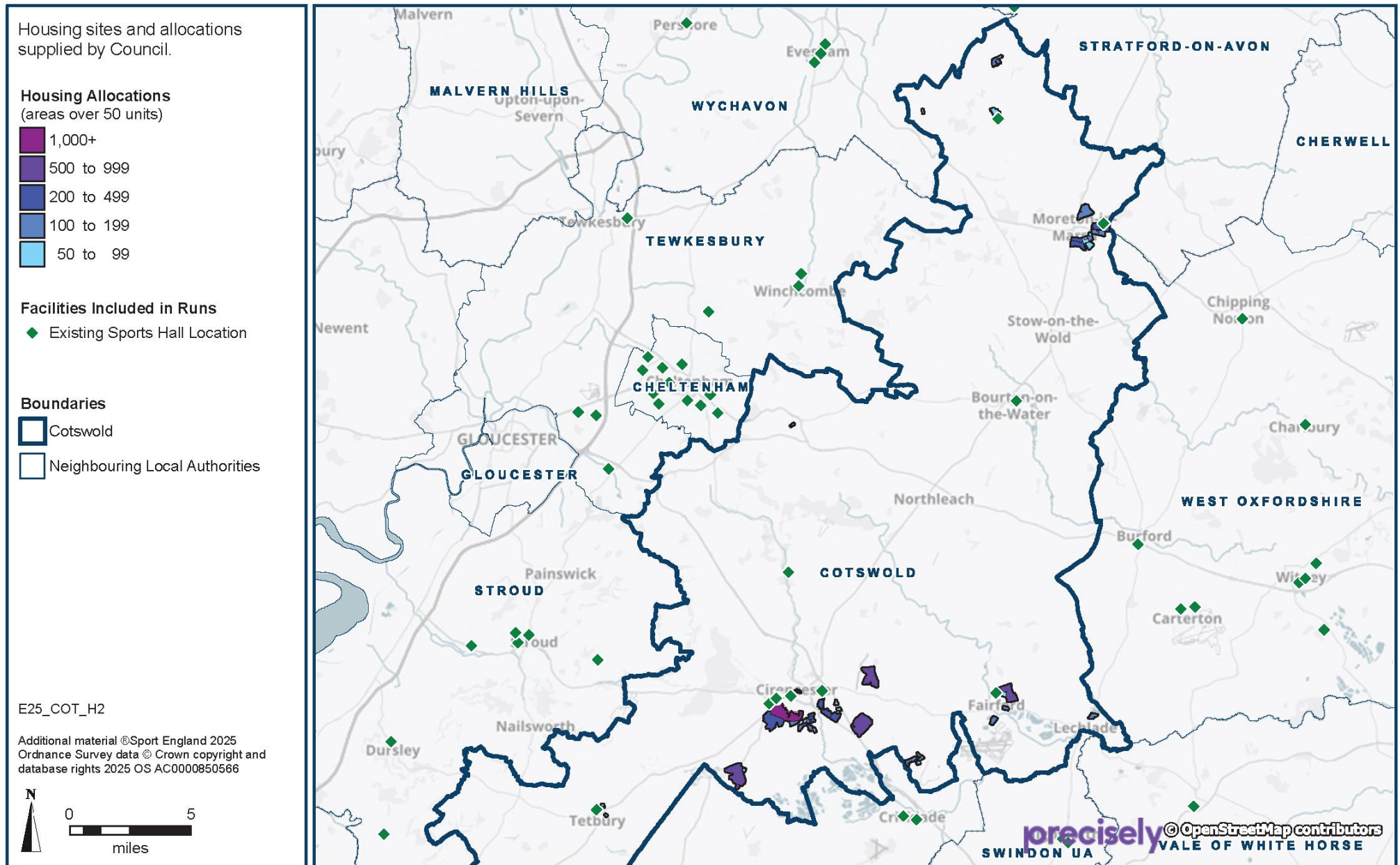
2043

- 3.12 In 2043 demand across Cotswold increases by 1.7 courts, with a comfort factor included.
- 3.13 Demand in the Cirencester area increases to 5.8 courts across 19 square kilometres (see Map **3.3**).
- 3.14 The changes in demand in other areas are as follows:
- Tetbury – decreases by 0.3 courts to 1.2 courts across five square kilometres
 - Moreton-in-Marsh – increases by 0.6 courts to 1.6 courts across six square kilometres
 - Fairford – increases by 0.1 courts to 1.1 courts across six square kilometres
 - Stow-on-the-Wold – unchanged at 0.8 courts across five square kilometres
- 3.15 Demand in Chipping Campden decreases by 0.2 courts to 0.3 courts.
- 3.16 Outside of these areas demand remains at between 0.1 and 0.2 courts.

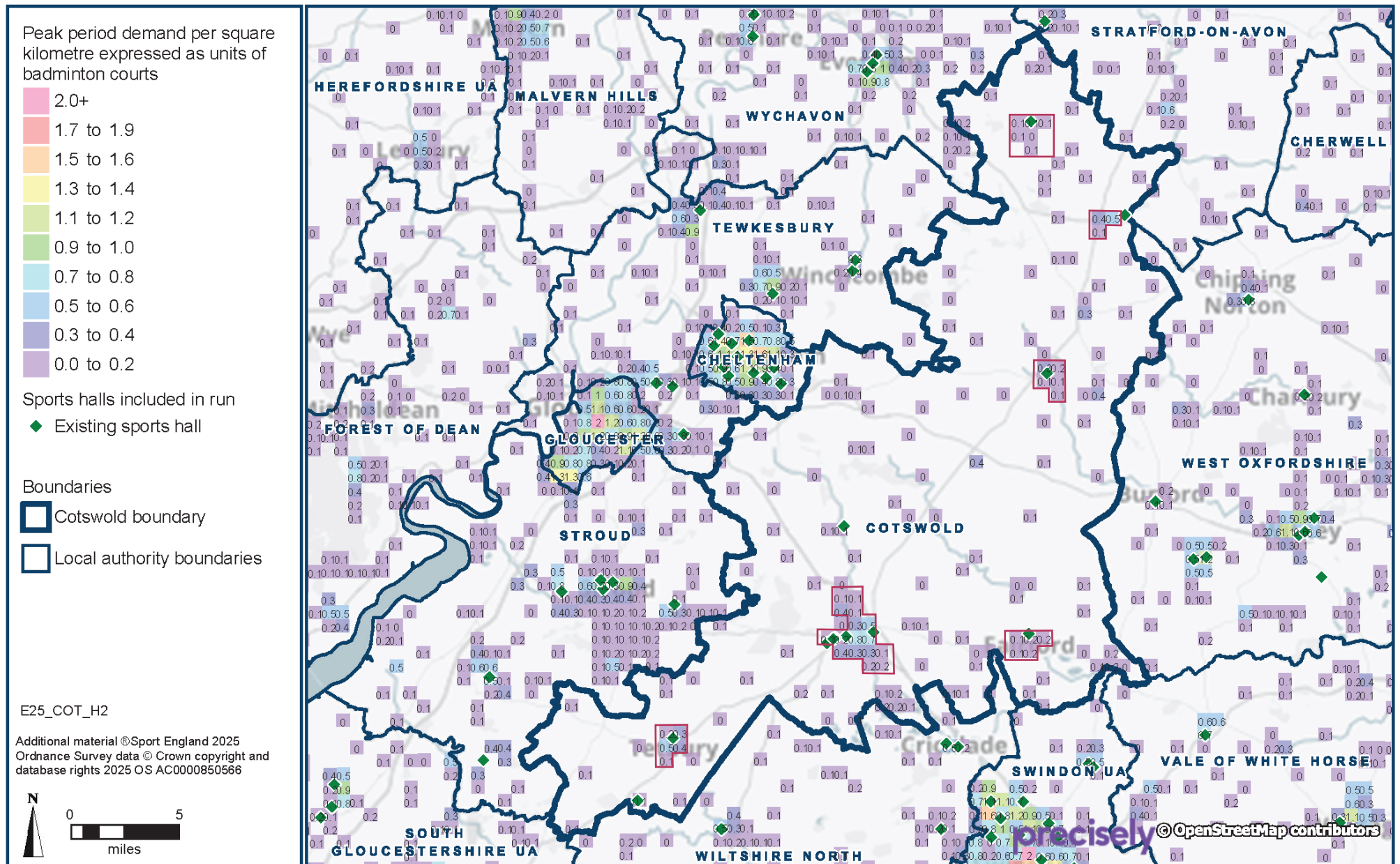
Deprivation

- 3.17 None of Cotswold's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally in 2025 or 2043.
- 3.18 The area of greatest deprivation in Cotswold is in the 40% most-deprived LSOAs in south Cirencester (dark orange area in Map **3.4**).
- 3.19 The Index of Multiple Deprivation (IMD) score is used in the FPM to limit whether people will use commercial facilities (see Appendix **3** 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.

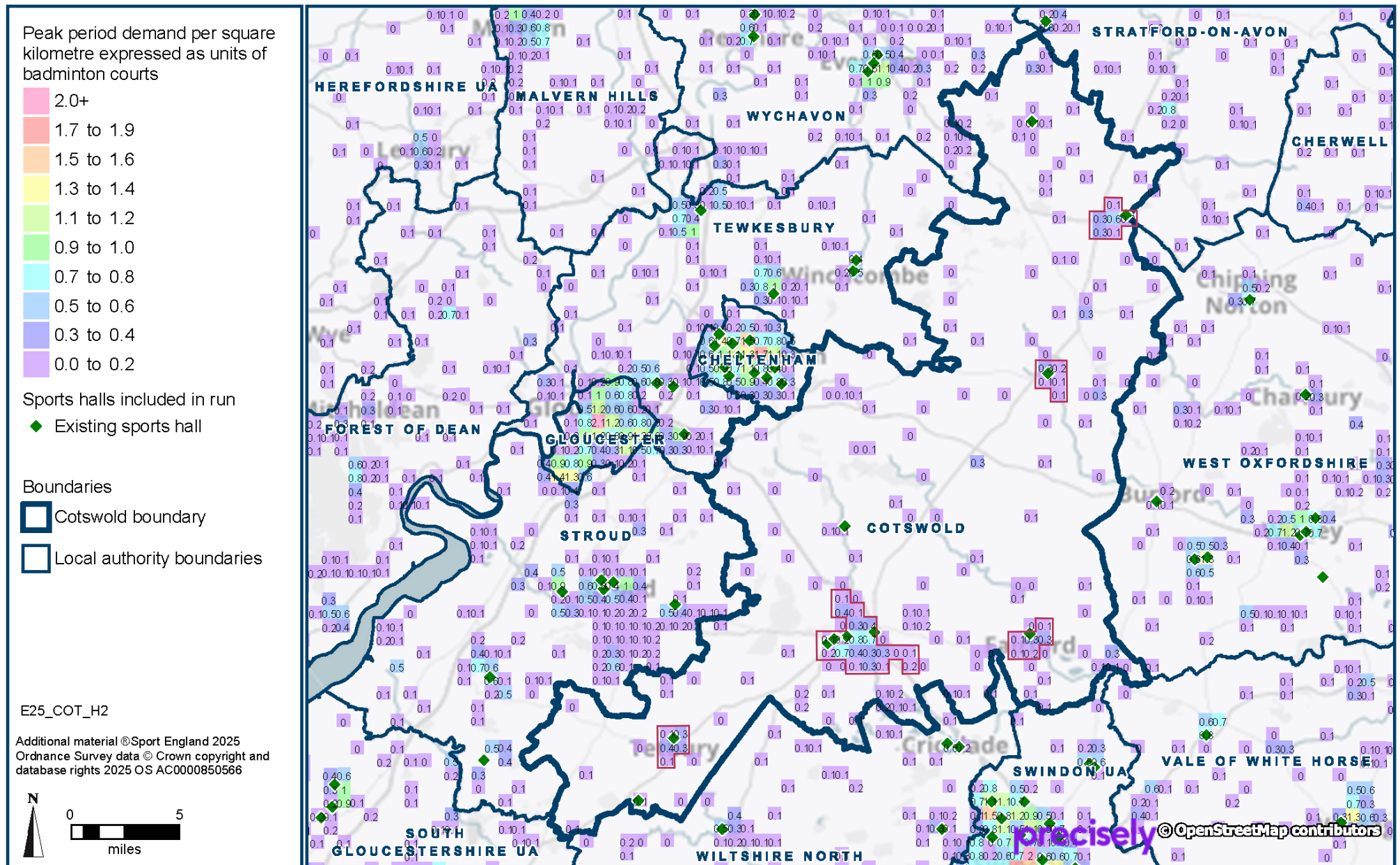
Map 3.1: Housing Growth Areas in Cotswold to 2043 (Run 2)



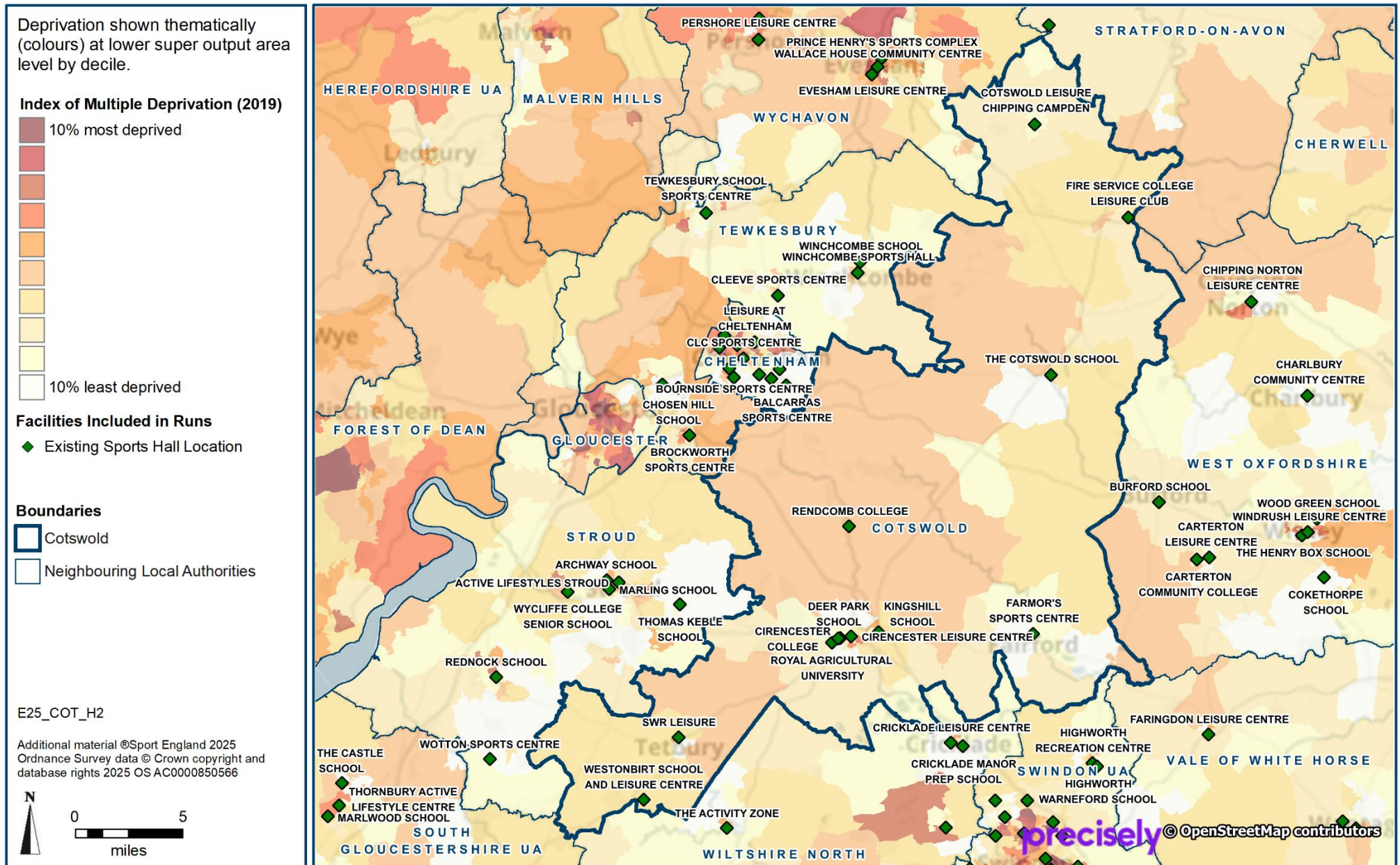
Map 3.2 Demand for Sports Halls in 2025 (Run 1)



Map 3.3: Demand for Sports Halls in 2043 (Run 2)



Map 3.4: Deprivation in 2019 (Runs 1 and 2)



4 ACCESSIBILITY

A third of Cotswold's residents are within a 20-minute walk of a sports hall.

All the sports hall sites are within a five-minute walk of an existing bus stop.

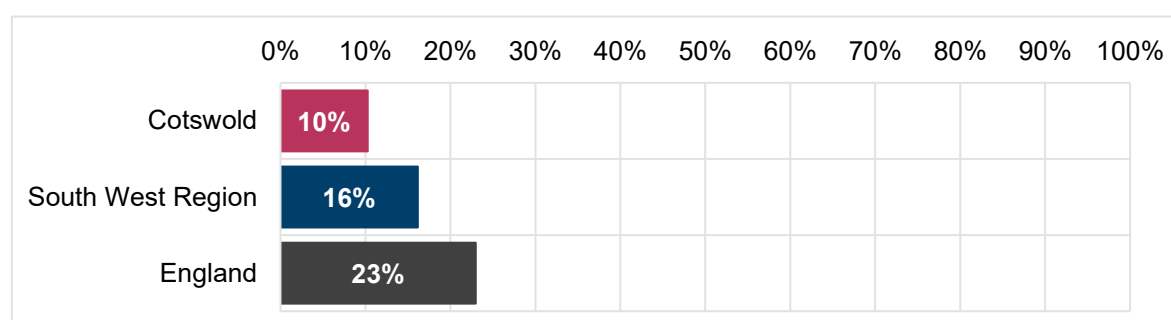
In both 2025 and 2043, all residents of Cotswold are within a 20-minute drive of at least one sports hall. Access is better in the southern half of the District where residents in some areas can drive to more than 20 sports hall sites within 20 minutes.

Table 4.1: Travel Mode of Cotswold Demand to Sports Halls by Run

Accessibility	Run 1	Run 2
Cotswold	2025	2043
% of total residents within a 20-minute walk of a sports hall	33%	33%
% of demand satisfied when travelled:		
on foot	7%	7%
by public transport or bicycle	4%	4%
by car	89%	89%

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 3. On average, a 20-minute travel time accounts for approximately 90% of visits to a sports hall.

Chart 4.1: Proportion of Residents Without Access to a Car



- 4.1 In Cotswold, 10% of residents do not have access to a car. This is lower than both the regional average of 16% and the national average of 23%.

Walking Access

- 4.2 In 2025 and 2043, 33% of Cotswold's residents are within a 20-minute walk of a sports hall.
- 4.3 Residents in the main settlements are mostly within a 20-minute walk of one sports hall (see Map 4.1).

- 4.4 However, not all residents in these areas will walk to a sports hall and some will travel further. It is estimated that 7% of journeys by Cotswold residents to sports halls are made on foot in 2025 and 2043.

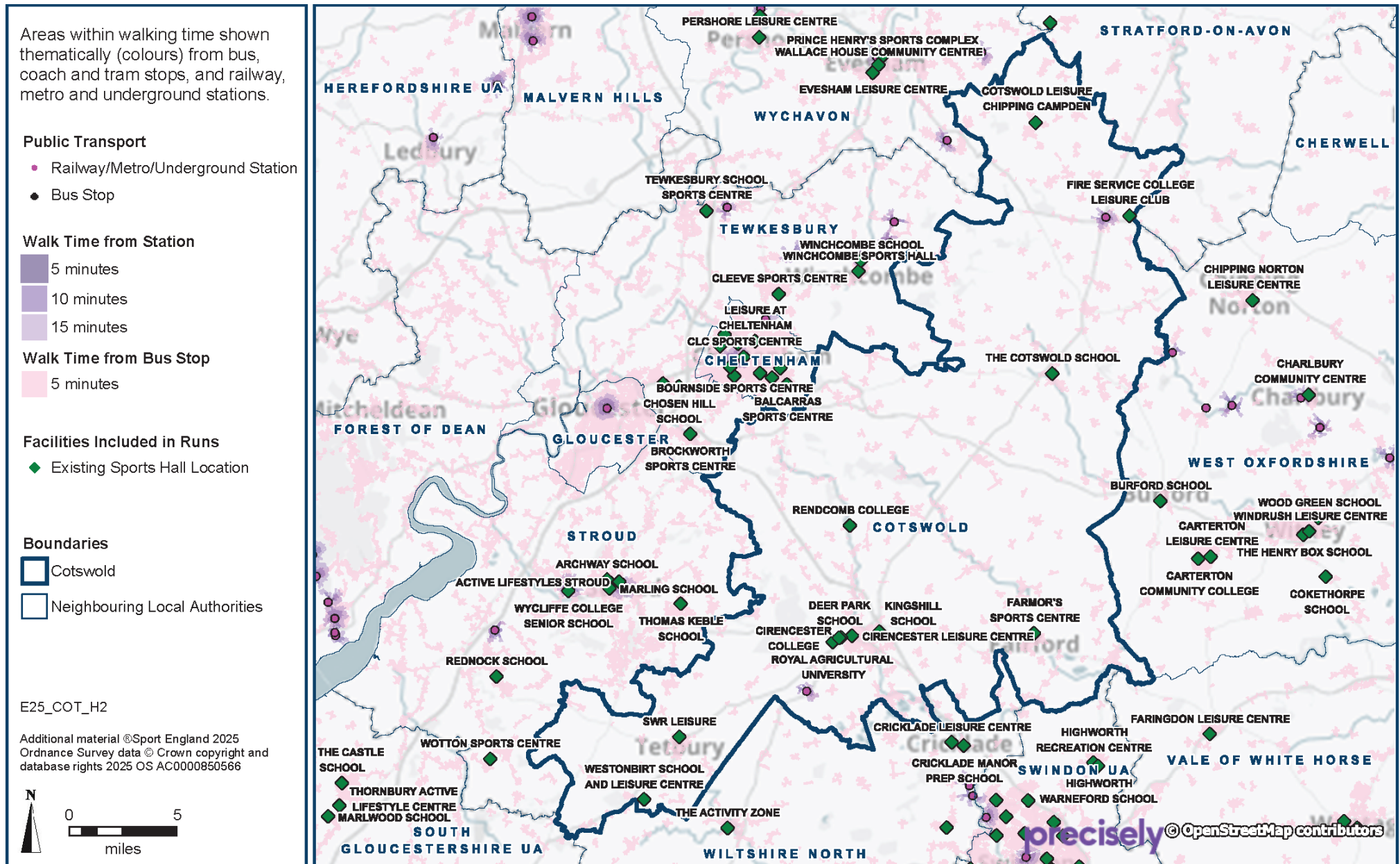
Public Transport Access

- 4.5 All the sports hall sites are within a five-minute walk of an existing bus stop (pink areas in Map 4.2). However, the bus service is very limited, for example, in Southrop there is one return bus a day. This is the level of service in many villages.
- 4.6 None of the sports hall sites are within a 15-minute walk of a railway station (purple areas).
- 4.7 It should be noted that, while most Cotswold residents can access an existing public transport stop, it may not mean they can get to a sports hall within 20 minutes from home via a combination of walking and public transport.
- 4.8 **Key finding 5** is that it is estimated that 4% of journeys by Cotswold residents to sports halls are made by public transport or bicycle in 2025 and 2043. This is less than the regional proportion of 6% and the national proportion of 9% in both years.

Driving Access

- 4.9 In both 2025 and 2043, all residents of Cotswold are within a 20-minute drive of at least one sports hall (light green areas in Map 4.3).
- 4.10 Access is better in the southern half of the District where residents in most areas can drive to between five and 14 sites within 20 minutes (medium green and light blue areas).
- 4.11 There are 11 sports hall sites in the small land area of Cheltenham, and three in Tewkesbury, which are close to the border with Cotswold. This high level of provision contributes to residents in two small areas bordering these local authorities being able to access more than 20 sports hall sites within a 20-minute drive (purple areas).
- 4.12 It is estimated that 89% of journeys by Cotswold residents to sports halls are made by car in 2025 and 2043.

Map 4.2: Walking Access to Public Transport in 2025 (Runs 1 and 2)



5 SATISFIED DEMAND FOR SPORTS HALLS

Nearly all of Cotswold's demand is satisfied in 2025 and 2043, and most is met within the District.

Around a quarter of the Cotswold's satisfied demand is met at sports halls in neighbouring local authority areas.

In 2025 the largest amount of exported demand goes to West Oxfordshire, and in 2043 to Swindon. The difference in the number of visits between the two local authorities is small.

Table 5.1: Satisfied Demand for Sports Halls in Cotswold by Run

Satisfied Demand	Run 1	Run 2
Cotswold	2025	2043
Number of visits which are met per week in peak period	6,227	6,714
% of total demand satisfied	96%	96%
Number of visits retained per week in peak period	4,661	5,212
Demand retained as a % of satisfied demand	75%	78%
Number of visits exported per week in peak period	1,566	1,502
Demand exported as a % of satisfied demand	25%	22%

Definition of satisfied demand – This represents the proportion of total demand that is met by the capacity at the sports halls from Cotswold residents who live within the travel time of a sports hall. This includes sports halls located both within and outside Cotswold.

- 5.1 **Key finding 6** is that 96% of Cotswold's demand is met in 2025 and 2043. The number of visits met in the weekly peak period increases from 6,227 in 2025 to 6,714 in 2043 because of the increase in demand in the District.
- 5.2 Cotswold's proportion of met demand is above the regional average of 95% in both years, and the national average of 95% in 2025 and 94% in 2043.
- 5.3 The proportion of met demand in Cotswold is the same as in Stratford-on-Avon, Stroud, and Wiltshire and Wychavon in both years. Met demand is highest in Cheltenham at 98% in both years.
- 5.4 Details of the sports halls in the neighbouring local authority areas are listed in Appendix 2.

Table 5.2: Proportion of Demand Met by Area and Run

Proportion of Demand Met	Run 1	Run 2
Area	2025	2043
Cotswold	96%	96%
Cheltenham	98%	98%
South Gloucestershire	97%	97%
Stratford-on-Avon	96%	96%
Stroud	96%	96%
Swindon	97%	96%
Tewkesbury	97%	97%
Vale of White Horse	97%	97%
West Oxfordshire	97%	97%
Wiltshire	96%	96%
Wychavon	96%	96%
South West Region	95%	95%
England	95%	94%

Retained Demand

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

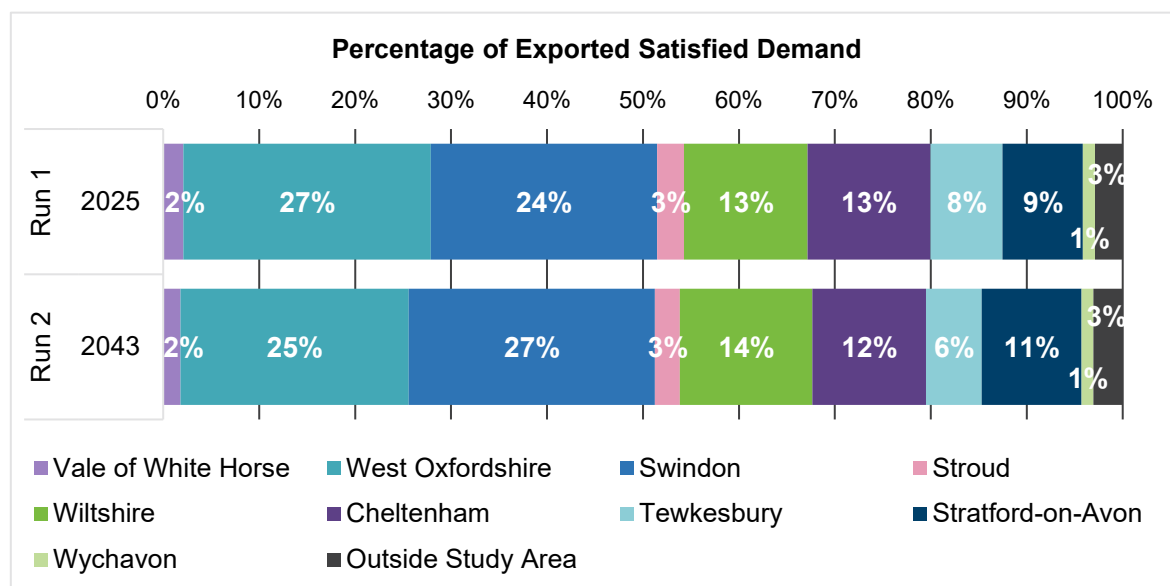
- 5.5 **Key finding 7** is that most of Cotswold's satisfied demand is met within the District at 75% in 2025 and 78% in 2043. In terms of visits, 4,661 are retained in the weekly peak period in 2025, and 5,212 visits in 2043.

Exported Demand

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

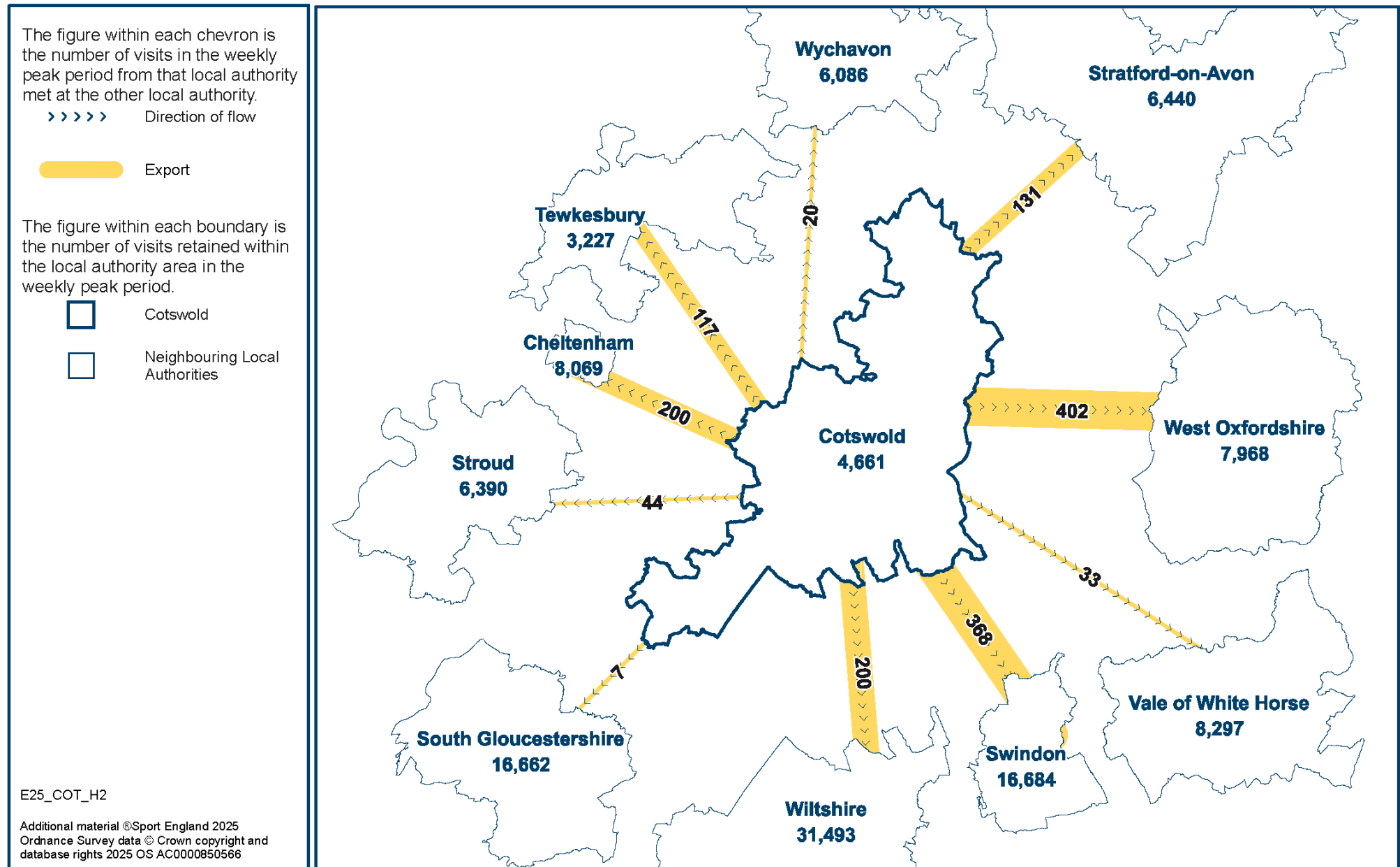
- 5.6 Of Cotswold's satisfied demand, around a quarter is met at sports halls in neighbouring local authority areas, at 25% in 2025 and 22% in 2043.
- 5.7 In terms of visits, the District exports 1,566 visits in the weekly peak period in 2025, decreasing slightly to 1,502 visits in 2043.

Chart 5.1: Percentage of Exported Satisfied Demand by Destination and Run

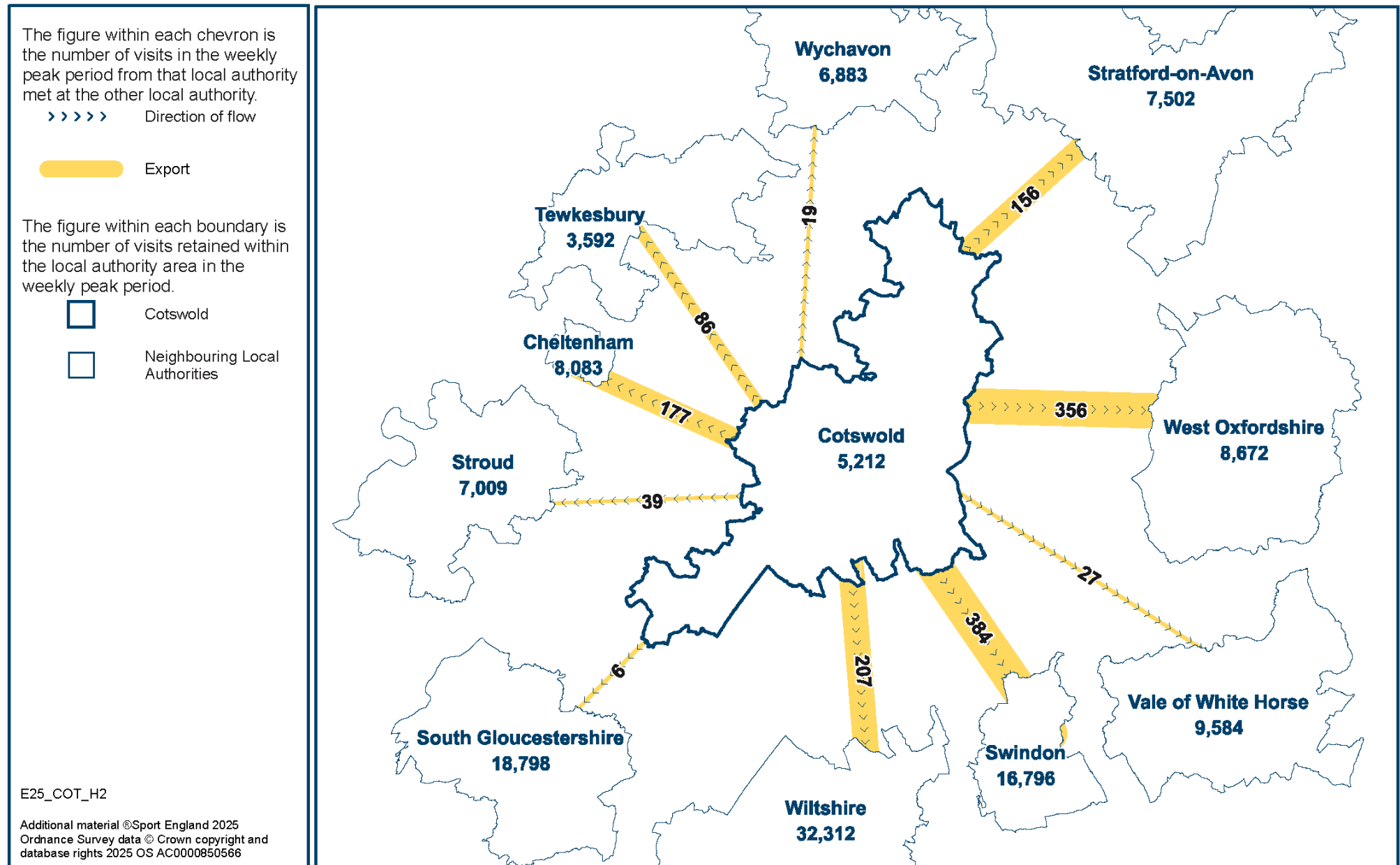


- 5.8 In 2025 the largest proportion of Cotswold's exported demand goes to West Oxfordshire, accounting for 27% and 402 visits in the weekly peak period (see Map 5.1).
- 5.9 There are four sports hall sites in West Oxfordshire quite close to the border with Cotswold, including two public leisure centres. Carterton Leisure Centre is a four-court hall suitable for club development, and opened in 2020. Chipping Norton Leisure Centre is a four-court hall, and opened in 2002. Both are attractive sites in terms of their age and availability.
- 5.10 The second largest amount of exported demand goes to Swindon at 24%. In terms of visits, 368 are exported and met in Swindon. Highworth Recreation Centre in Swindon is accessible to some Cotswold residents. The centre has a four-court hall and a large activity hall. The centre opened in 1988, was refurbished in 2004, and has extensive availability.
- 5.11 Demand exported from Cotswold and met in neighbouring local authorities in the weekly peak period decreases from 1,566 visits in 2025 to 1,502 visits in 2043.
- 5.12 There is little change in the number of visits exported to each local authority (see Map 5.2). Demand exported to Swindon increases by 16 visits in the weekly peak period to 384 visits, and accounts for 27% of Cotswold's exported demand. In Cotswold there is a demand increase in Fairford (on the Swindon border) because of housing growth, and there is no change in supply.
- 5.13 Demand exported to West Oxfordshire decreases by 46 visits in the weekly peak period to 356 visits, accounting for 25% of Cotswold's exported demand.

Map 5.1: Export of Cotswold Satisfied Demand for Sports Halls in 2025 (Run 1)



Map 5.2: Export of Cotswold Satisfied Demand for Sports Halls in 2043 (Run 2)



6 UNMET DEMAND FOR SPORTS HALLS

Unmet demand in Cotswold is very low, at less than one court in both 2025 and 2043.

All the unmet demand is too far from a facility.

Unmet demand is distributed in very low values per square kilometre across Cotswold, the highest value being 0.1 courts.

Table 6.1: Unmet Demand for Sports Halls in Cotswold by Run

Unmet Demand	Run 1	Run 2
Cotswold	2025	2043
Number of visits unmet per week in peak period	257	278
Unmet demand as a % of total demand	4%	4%
Equivalent in courts with comfort factor	0.9	0.9
% of unmet demand due to:		
Facility too far away:	100%	100%
Without access to a car	85%	87%
With access to a car	15%	13%
Lack of facility capacity:	0%	0%
Without access to a car	0%	0%
With access to a car	0%	0%

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 hall that it can use (taking into account deprivation) or reach (taking into account car access) and is then classified as unmet demand.

- 6.1 Unmet demand in Cotswold is low and there is little change between 2025 and 2043. In 2025 unmet demand is 257 visits in the weekly peak period, and in 2043 is 278 visits.
- 6.2 **Key finding 8** is that in 2025 and 2043 unmet demand is 0.9 courts, accounting for 4% of demand in both years. In both years all the unmet demand is too far from a facility.
- 6.3 Residents who are too far from a facility account for all unmet demand in both years.
- 6.4 There is no unmet demand due to lack of sports hall capacity.
- 6.5 Unmet demand 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.

Location of Unmet Demand

2025

- 6.6 As unmet demand is less than one court across Cotswold, there is no area with high unmet demand. The largest cluster of unmet demand, at less than 0.1 courts per square kilometre, is in Cirencester (purple squares in Map 6.1).
- 6.7 Clusters of unmet demand of less than 0.1 courts are next highest in Fairford and Tetbury.

2043

- 6.8 In 2043 unmet demand is unchanged and remains at less than 0.1 courts per square kilometre across Cotswold (see Map 6.2).
- 6.9 The largest cluster of unmet demand remains in Cirencester and over a larger area due to the housing growth sites. Unmet demand is also more extensive in Fairford.

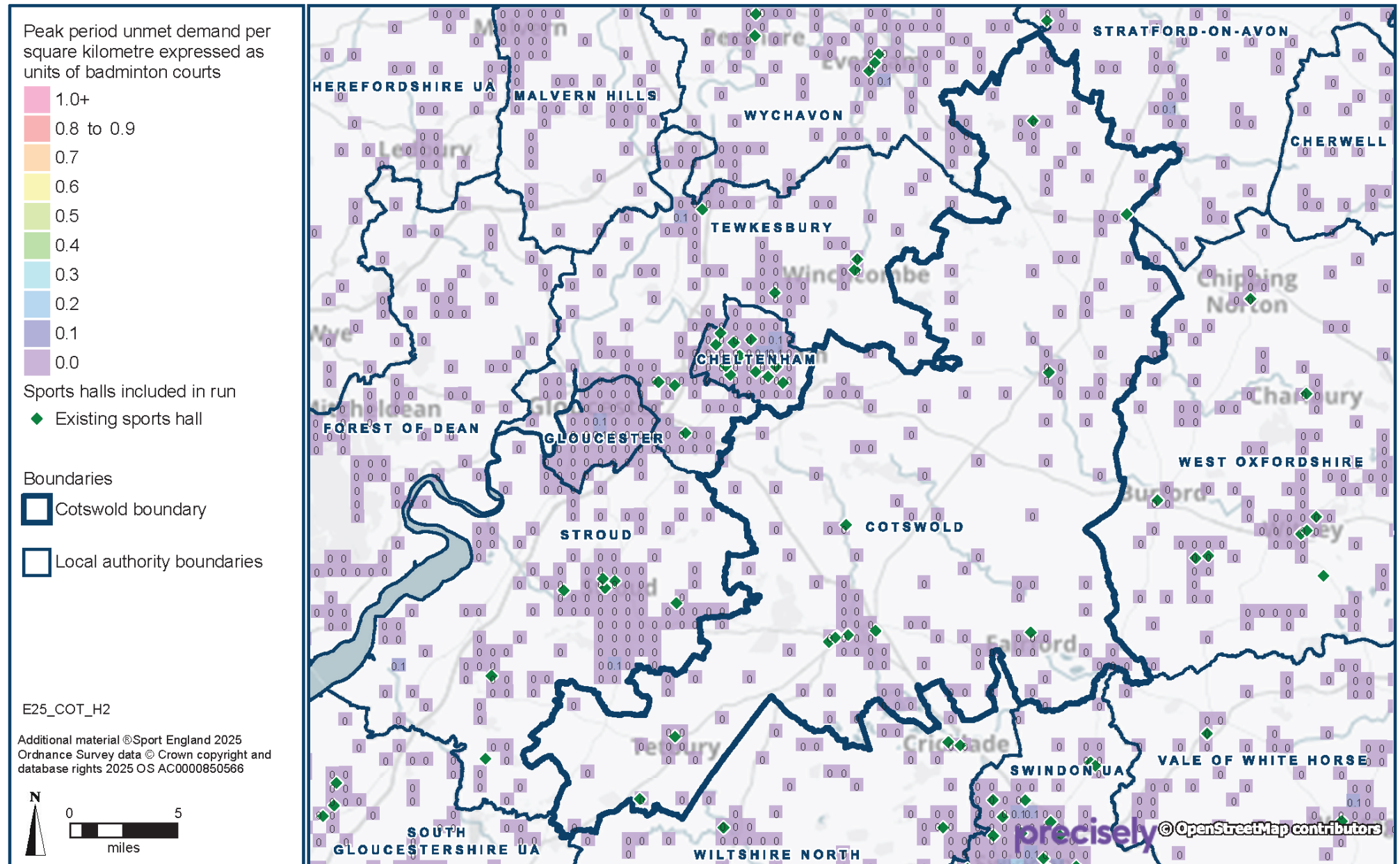
Meeting Unmet Demand

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.

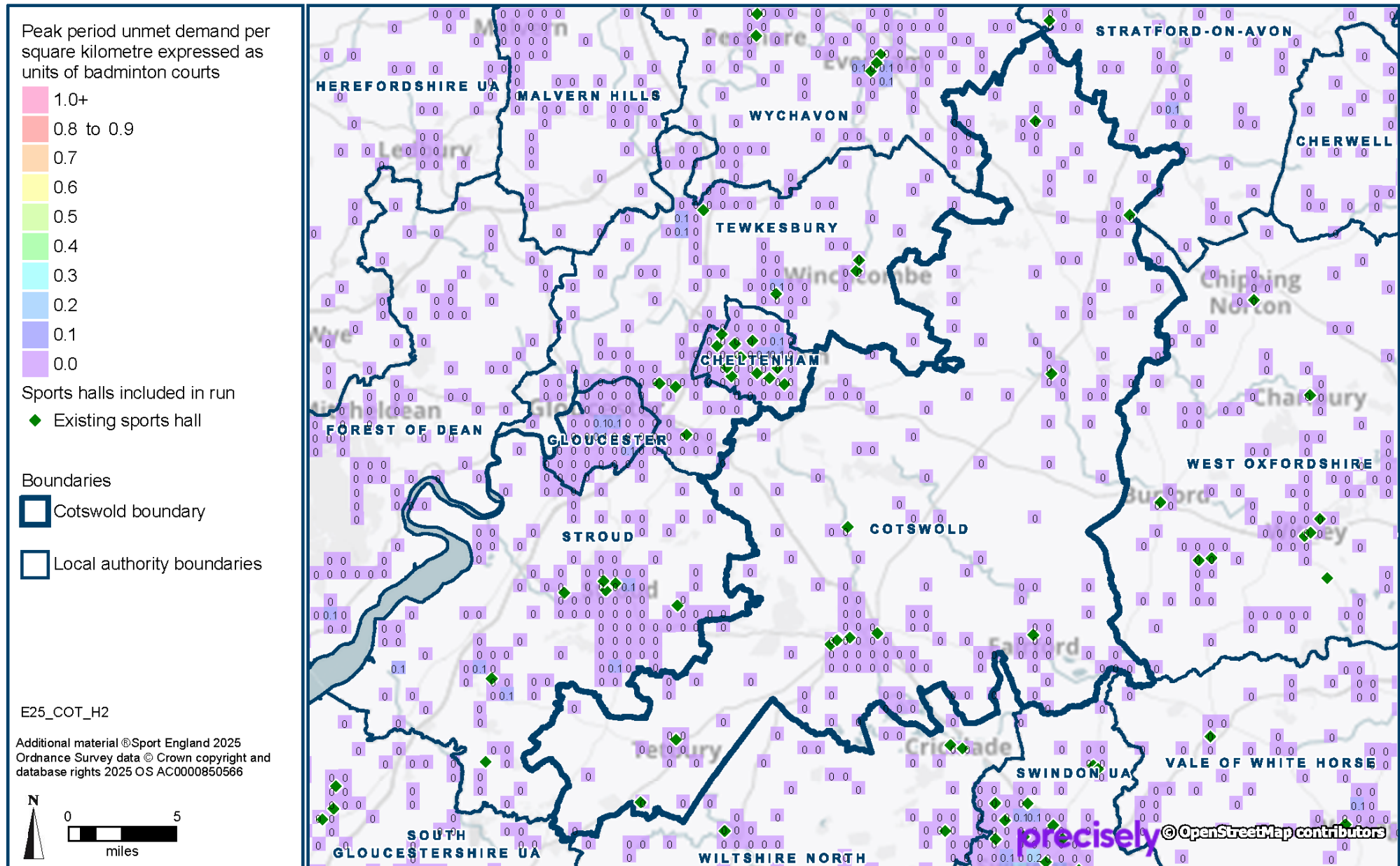
- 6.10 In 2043 the locations in Cotswold where the most unmet demand can be met are in Kingscote (southwest Cotswold), Moreton-in-Marsh, Bourton-on-the Hill and Saintbury (north Cotswold) at 0.3 courts (light blue squares in Map 6.3). This is an insufficient amount to consider providing a new sports hall to meet unmet demand and improve accessibility for residents.

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

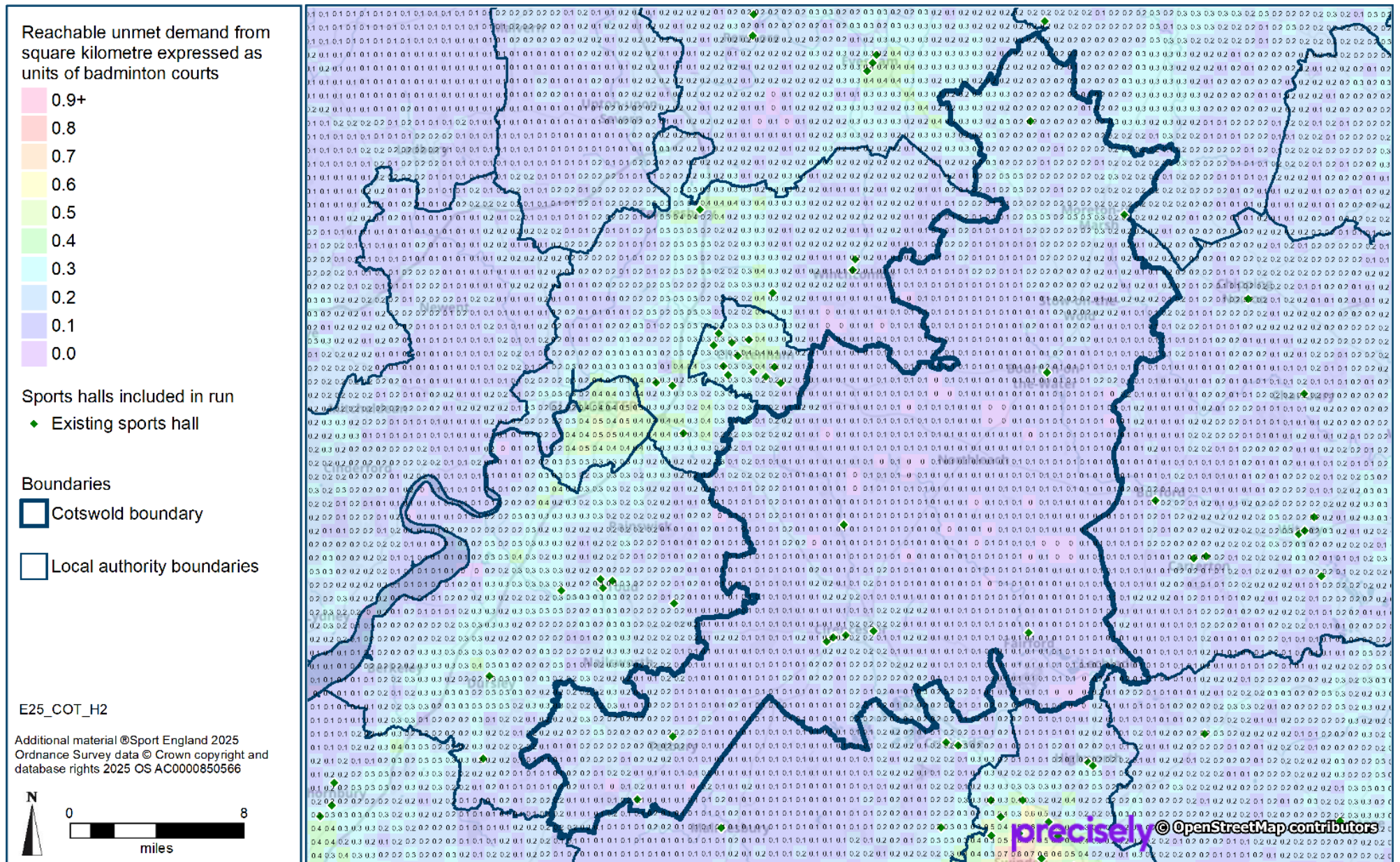
Map 6.1: Unmet Demand for Sports Halls in 2025 (Run 1)



Map 6.2: Unmet Demand for Sports Halls in 2043 (Run 2)



Map 6.3: Reachable Unmet Demand for Sports Halls in 2043 (Run 2)



7 USED CAPACITY OF FACILITIES

Overall utilisation of the sports halls in Cotswold in 2025 is 40% at peak times, and in 2043 is 44%.

Cirencester Leisure Centre is estimated to be 79% utilised in 2025, increasing to 92% in 2043.

Imported demand accounts for just over a quarter of the used capacity of Cotswold's sports halls in both years.

Most of the imported demand is divided almost equally between Stratford-on-Avon, Wiltshire and Stroud.

Cotswold imports more visits than it exports in both 2025 and 2043.

Table 7.1: Used Capacity of Sports Halls in Cotswold by Run

Used Capacity	Run 1	Run 2
Cotswold	2025	2043
Number of visits used of capacity in weekly peak period	6,352	7,076
% of overall capacity of halls used	40%	44%

Definition of used capacity – This is a measure of usage at sports halls and estimates how well used or how full facilities are. The FPM is designed to include a 'comfort factor', beyond which the venues are too full. When the venues are too full, the time taken to change the sports hall programme and equipment starts to impinge on the activity time itself and the changing and circulation areas become congested. In the model, Sport England assumes that usage above 80% of capacity is busy and that the sports hall is operating at an uncomfortable level.

- 7.1 The number of visits met at Cotswold's sports halls in the weekly peak period increases from 6,352 visits in 2025 to 7,076 visits in 2043, due to the increase in demand to 2043.
- 7.2 **Key finding 9** is that the estimated used capacity of Cotswold's sports halls is 40% in the weekly peak period in 2025, and 44% in 2043. However, Cirencester Leisure Centre is estimated to be 79% utilised at peak times in 2025, and is uncomfortably busy (more than 80% utilised) at 92% utilisation in 2043.
- 7.3 The overall small proportion of used capacity is because Cotswold's demand is less than half of the District's available supply in both years.

Table 7.2: Weekly Peak Period Used Capacity of Cotswold Sports Halls by Run

Used Capacity	2025 (Run 1)		2043 (Run 2)		Provider	Peak Hours	Year Built	Year Refurb
Individual Sites	Proportion	Visits Met	Proportion	Visits Met				
Cirencester Leisure Centre	79%	1,746	92%	2,031	Public	46	2006	
Cotswold Leisure Chipping Campden	57%	1,139	56%	1,128	Educational (3rd party)	39.5	1996	
SWR Leisure	45%	852	38%	718	Educational (3rd party)	37	1993	2013
Cirencester College	15%	23	18%	29	Educational (in-house)	5	2015	
Cirencester Deer Park School	20%	332	25%	420	Educational (in-house)	32.5	1992	
Cirencester Kingshill School	42%	369	50%	446	Educational (in-house)	17.5	2000	
Farmor's Sports Centre	31%	220	43%	305	Educational (in-house)	22	1990	
Rendcomb College	8%	82	7%	73	Educational (in-house)	34	1994	2008
Royal Agricultural University	19%	256	29%	392	Educational (in-house)	43	2014	
The Cotswold School	44%	725	41%	671	Educational (in-house)	14	2009	
Westonbirt School and Leisure Centre	16%	232	20%	280	Educational (in-house)	44	2005	
Fire Service College Leisure Club	39%	376	61%	583	Other (sport club)	30	1977	

Site Utilisation Factors

- 7.4 The estimated used capacity should be reviewed with the facility operator. There are several reasons for the variation in estimated used capacity by site. Often it is difficult to identify which of these reasons apply because several could be interacting simultaneously, but variation is generally caused by any of the following factors.

Type of site operator (public/educational)

- Public leisure centres have a 'draw effect' for the following reasons:
 - They have the greatest accessibility for both sports club and public use because they are available for daytime use, which is not possible at educational venues during term time
 - Public operators actively promote hall sports and physical activity participation, with a programme of use that reflects the activities customers wish to participate in and when they wish to participate
- Access to educational sports halls for community use will be determined by the policy of each educational provider and affects the hours available for community use:
 - Some schools and colleges actively promote community use, while others let their sports halls to sports clubs or community groups on a termly basis, or for shorter periods
 - At some venues there is little differentiation between educational and wider community use, with community access based on a membership system (classified as commercial)

Age of the hall and its 'attractiveness'

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

Location of demand and competition from other sites

- Where sports halls are located close together, the demand for these sites is shared between the venues, and this contributes to the level of used capacity at each.
- Conversely, where a sports hall is remotely located, it benefits from having no competition for the local demand.

Capacity

- When reviewing the estimated used capacity, it is important to consider the capacity of the site and not just the proportion in isolation. Centres with the same or similar proportions of used capacity can accommodate very different levels of demand.
- The hours when a site is available for community use affects its capacity at peak times.

Imported demand

- If residents in neighbouring local authority areas participate at a site in Cotswold, their usage becomes part of the used capacity of Cotswold's sports halls.

7.5 Cirencester Leisure Centre meets the most visits in Cotswold in 2025 and 2043 for the following reasons:

- Only six-court hall in the District with the largest capacity
- Has the 'draw effect' of being a public leisure centre
- Attractive to residents in both years having opened in 2006
- Located in the area of highest demand in both years and close to the largest housing growth sites in Cirencester

7.6 Cirencester Leisure Centre is available for the maximum 46.0 hours in the weekly peak period; therefore, there is no scope to increase availability and capacity at peak times and reduce the proportion of used capacity.

Imported Demand

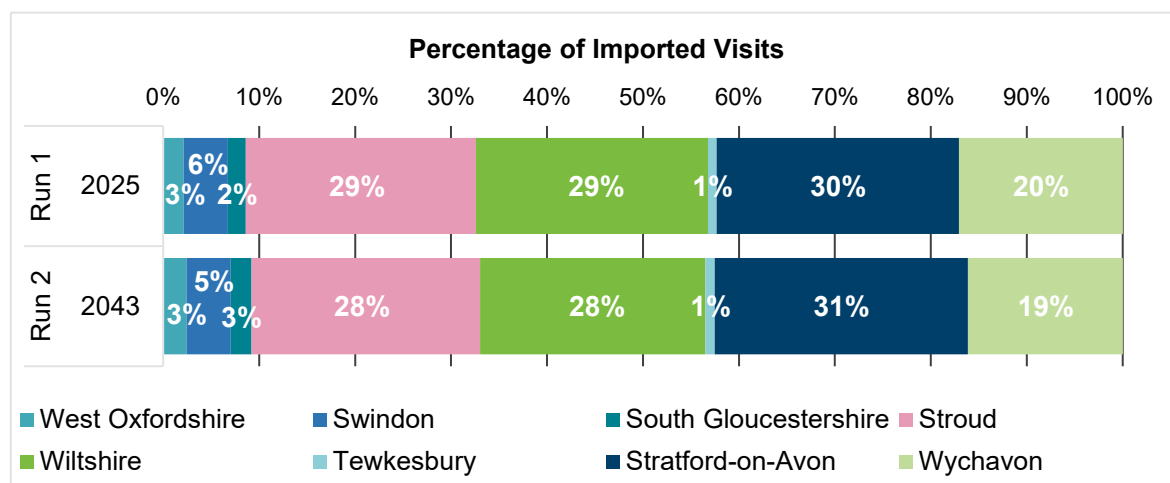
Table 7.3: Imported Demand for Sports Halls in Cotswold by Run

Imported Demand	Run 1	Run 2
Cotswold	2025	2043
Number of visits imported in weekly peak period	1,690	1,865
Visits imported as a % of used capacity	27%	26%
Difference between visits imported and exported	124	362

7.7 Imported demand to Cotswold's sports halls increases from 1,690 visits in the weekly peak period in 2025 to 1,865 visits in 2043. This equates to 27% of the used capacity of Cotswold's sports halls at peak times in 2025, and 26% in 2043. The proportion of imported used capacity is lower in 2043 because the number of retained visits has risen more in 2043.

7.8 Cotswold is a net importer of visits, importing 124 more visits in the weekly peak period than it exports in 2025, and 362 more visits in 2043.

Chart 7.1: Proportion of Imported Visits by Origin and Run



7.9 In 2025 the largest amount of imported demand is from Stratford-on-Avon at 424 visits in the weekly peak period (see Map 7.1). This accounts for 30% of Cotswold's imported demand. While demand is quite low in the area of Stratford-on-Avon that borders Cotswold, there are no sports hall sites in that area. Cotswold Leisure Chipping Campden and Fire Service College Leisure Club are both accessible to Stratford-on-Avon residents.

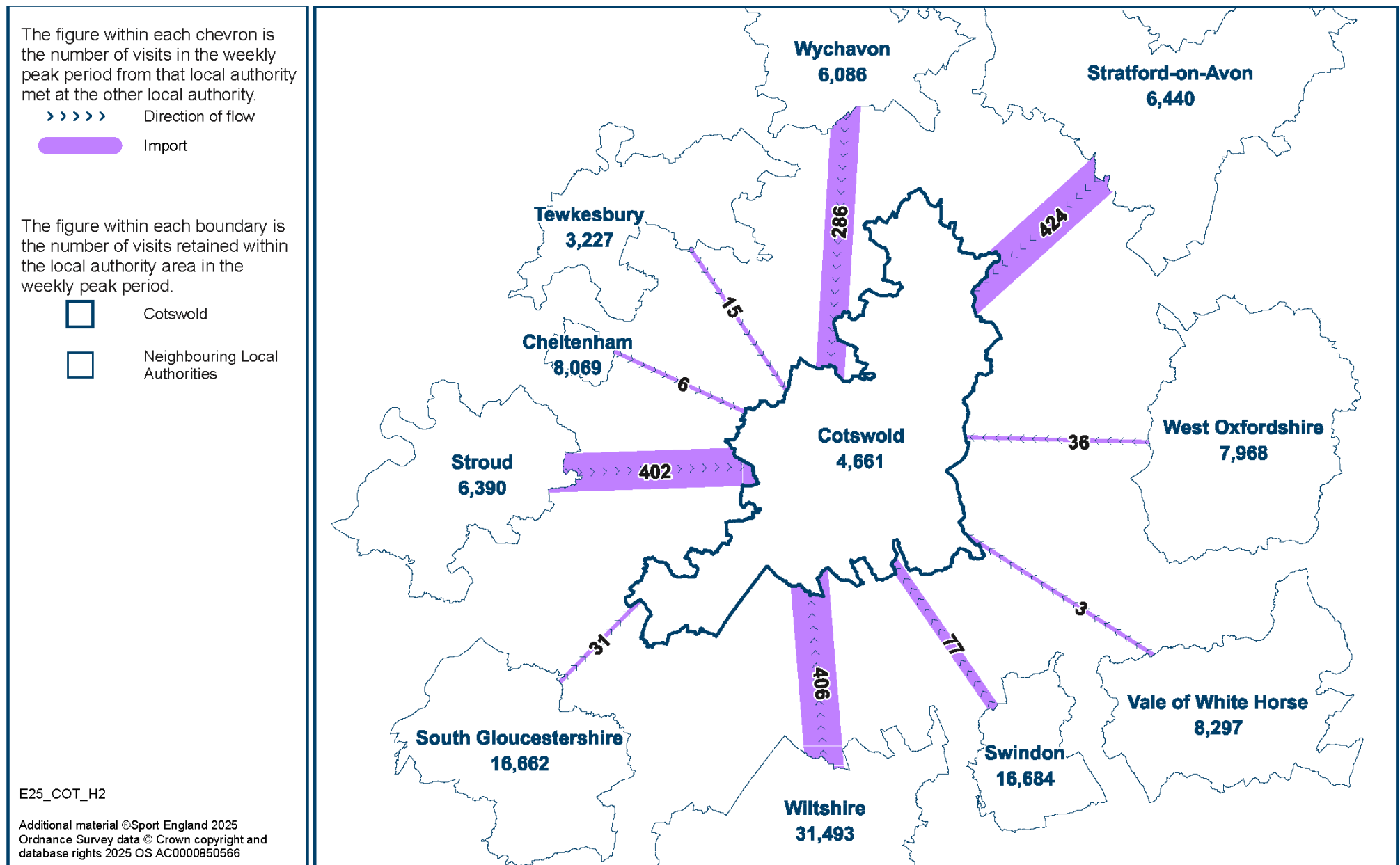
7.10 The second largest proportions of imported demand are 29% from:

- Wiltshire – 406 visits in the weekly peak period. Some of Wiltshire's demand can access the four sports hall sites in Cirencester.
- Stroud – 402 visits in the weekly peak period. Demand is high in the centre of Stroud and to the border with Cotswold. The A419 provides access for some Stroud residents to the sports hall sites in Cirencester.

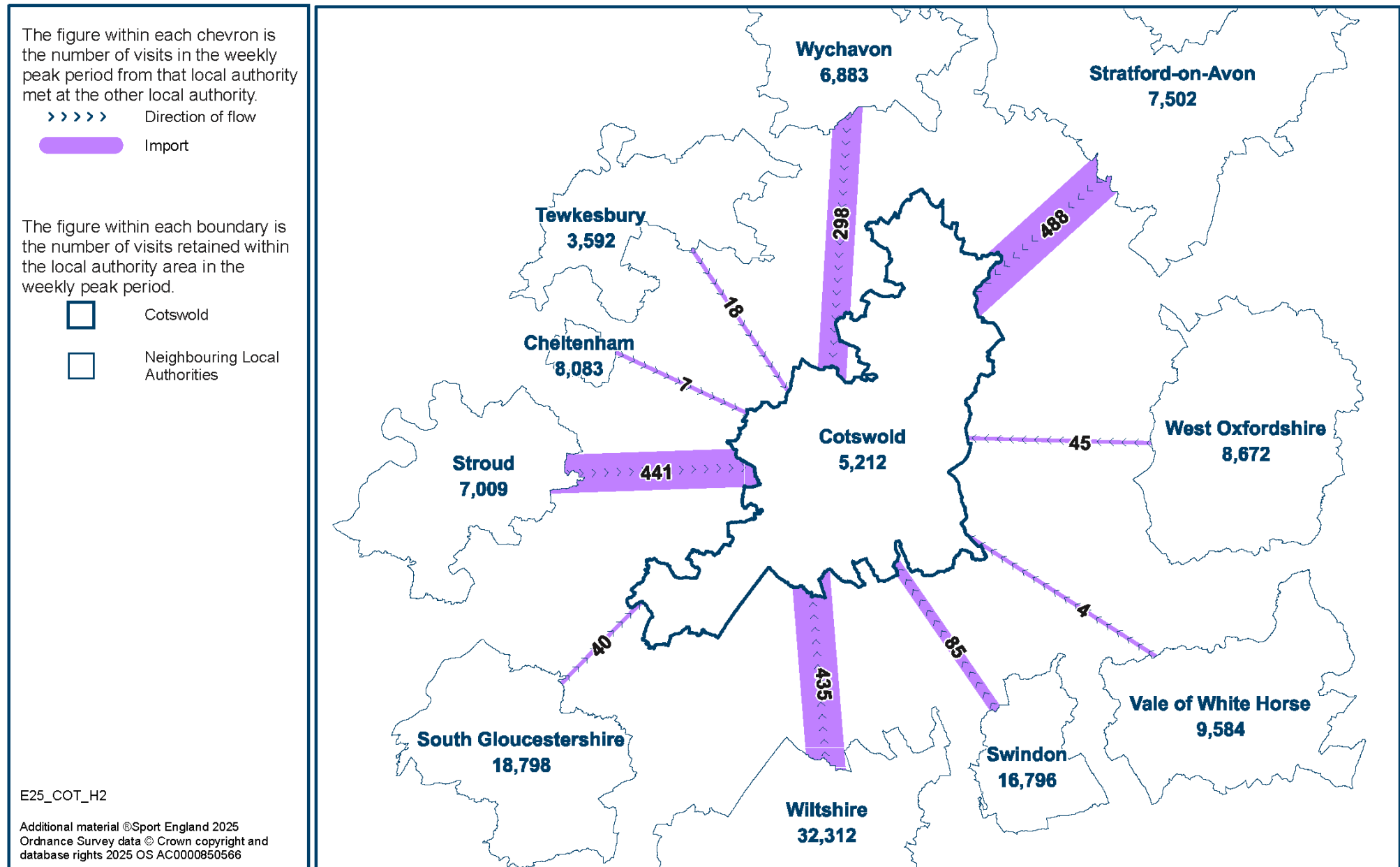
7.11 In 2043 most of Cotswold's imported demand is from the same three local authorities (see Map 7.2):

- Stratford-on-Avon increases to 488 visits in the weekly peak period, which equates to 31% of Cotswold's imported demand.
- Wiltshire increases to 435 visits in the weekly peak period, which equates to 28% of Cotswold's imported demand.
- Stroud increases slightly to 441 visits in the weekly peak period, which equates to 28% of Cotswold's imported demand.

Map 7.1: Imported Demand for Sports Halls to Cotswold in 2025 (Run 1)



Map 7.2: Imported Demand for Sports Halls to Cotswold in 2043 (Run 2)



8 LOCAL SHARE OF FACILITIES

In 2025 Cotswold has the best provision of sports hall space per head of population in the study area, with provision being above the regional and national averages.

In 2043 Cheltenham has the highest provision and Cotswold the second highest. The District's provision remains considerably higher than the regional and national averages.

Table 8.1: Local Share of Sports Halls in Cotswold by Run

Local Share	Run 1	Run 2
Cotswold	2025	2043
Local share of sports halls relative to demand in local area: <1 = poorer, >1 = better	1.26	0.76

Definition of local share – This helps show which areas have a better or worse share of facility provision. It considers the size, availability and quality of facilities, and 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 (considering deprivation), divided by the demand for that capacity in the area. Local share decreases as facilities age.

- 8.1 Local share shows how the access and share of sports halls differs across the local authority area, as follows:
- A value of 1 means that there is sufficient 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
- 8.2 Overall, local share identifies the areas of the local authority where the share of sports halls is better and worse. The intervention is to try and increase access for residents in the areas with the poorest access to sports halls.
- 8.3 In 2025 local share in Cotswold is 1.26, meaning that there is sufficient suitable provision that demand can access based on the age, used capacity and operation of the sports halls. Demand is lower in 2025 than in 2043.
- 8.4 In 2043 local share is 0.76, meaning that there is insufficient suitable provision that demand can access. Demand has increased, there is no change in capacity, and the sports halls have aged and become less attractive to residents.

Geographical Distribution of Local Share

2025

- 8.5 In 2025 local share varies across Cotswold, and is best in Rendcomb at 2.9 to 4.0 (purple squares in Map 8.1). Demand is very low in this area and residents can access Rendcomb College (a four-court hall with high availability and very low utilisation at peak times).
- 8.6 Local share in Tetbury is 1.7 to 1.8 (dark blue and purple squares). Residents can access SWR Leisure and Westonbirt School and Leisure Centre. Both centres have a four-court hall, and SWR Leisure also has an activity hall. Demand in Tetbury is quite high but is low in the surrounding area.
- 8.7 Local share is poorest in Moreton-in-Marsh at 0.8 (light green squares). Fire Service College Leisure Club is accessible to residents; however, it is the oldest sports hall in the District, having opened in 1977, and is unmodernised which makes it less attractive to residents.

2043

- 8.8 In 2043 local share remains best in Rendcomb but is lower at 2.1 to 3.1 (purple squares in Map 8.2). Demand is unchanged but there is no increase in capacity, and Rendcomb College sports hall has aged and become less attractive to residents. Local share in Tetbury is 1.0 (dark green squares).
- 8.9 Local share in Cirencester is 0.7 to 0.9 (yellow and light green squares). While Cirencester has the highest supply of sports halls with four sites, it also has the greatest demand. Demand increases to 2043 because the largest housing growth sites are to the south of the town.
- 8.10 Local share remains poorest in Moreton-in-Marsh at 0.4 (orange squares). Demand increases slightly and there is no improvement in supply or change in capacity.

Comparative Measure of Provision

- 8.11 A comparative measure of sports hall provision is the number of badminton court equivalents per 10,000 population.
- 8.12 In 2025 Cotswold's provision is 6.8 courts per 10,000 population. This is considerably above the regional average of 4.2 court per 10,000 population and the national average of 3.8 courts.
- 8.13 Cotswold has the best provision in the study area. Provision is only slightly lower in Cheltenham at 6.4 courts per 10,000 population. Wychavon has the poorest provision at 2.7 courts per 10,000 population.
- 8.14 In 2043 Cotswold's provision is 5.9 courts per 10,000 population, because the population has increased and the supply is unchanged.

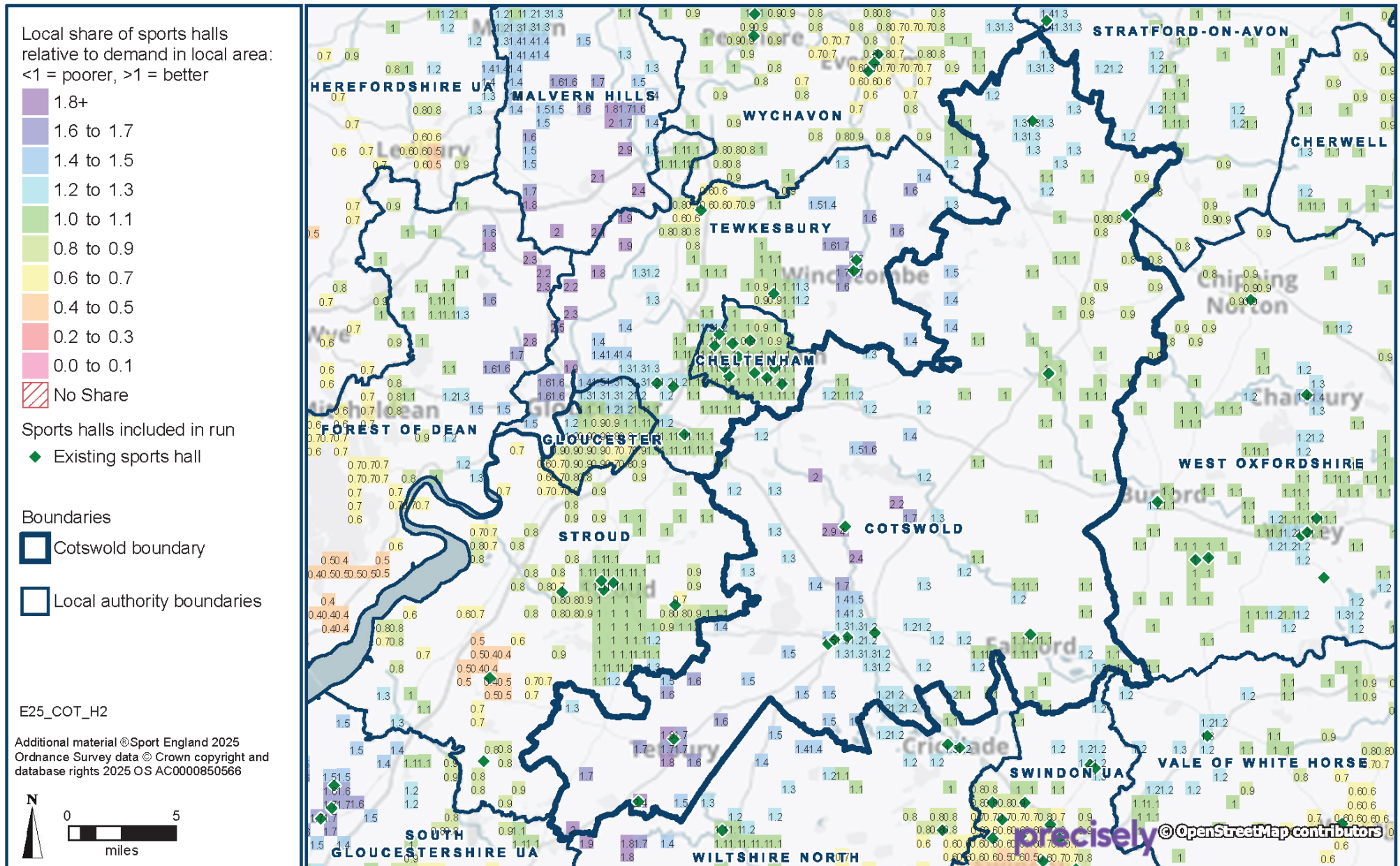
- 8.15 Cotswold has comparatively better provision than the regional average, which decreases to 3.8 courts per 10,000 population, and the national average, which remains at 3.6 courts.
- 8.16 Provision in the study area is now best in Cheltenham at 6.0 courts per 10,000 population. Cotswold has the second best provision.

Table 8.2: Badminton Court Equivalents per 10,000 Population by Area and Run

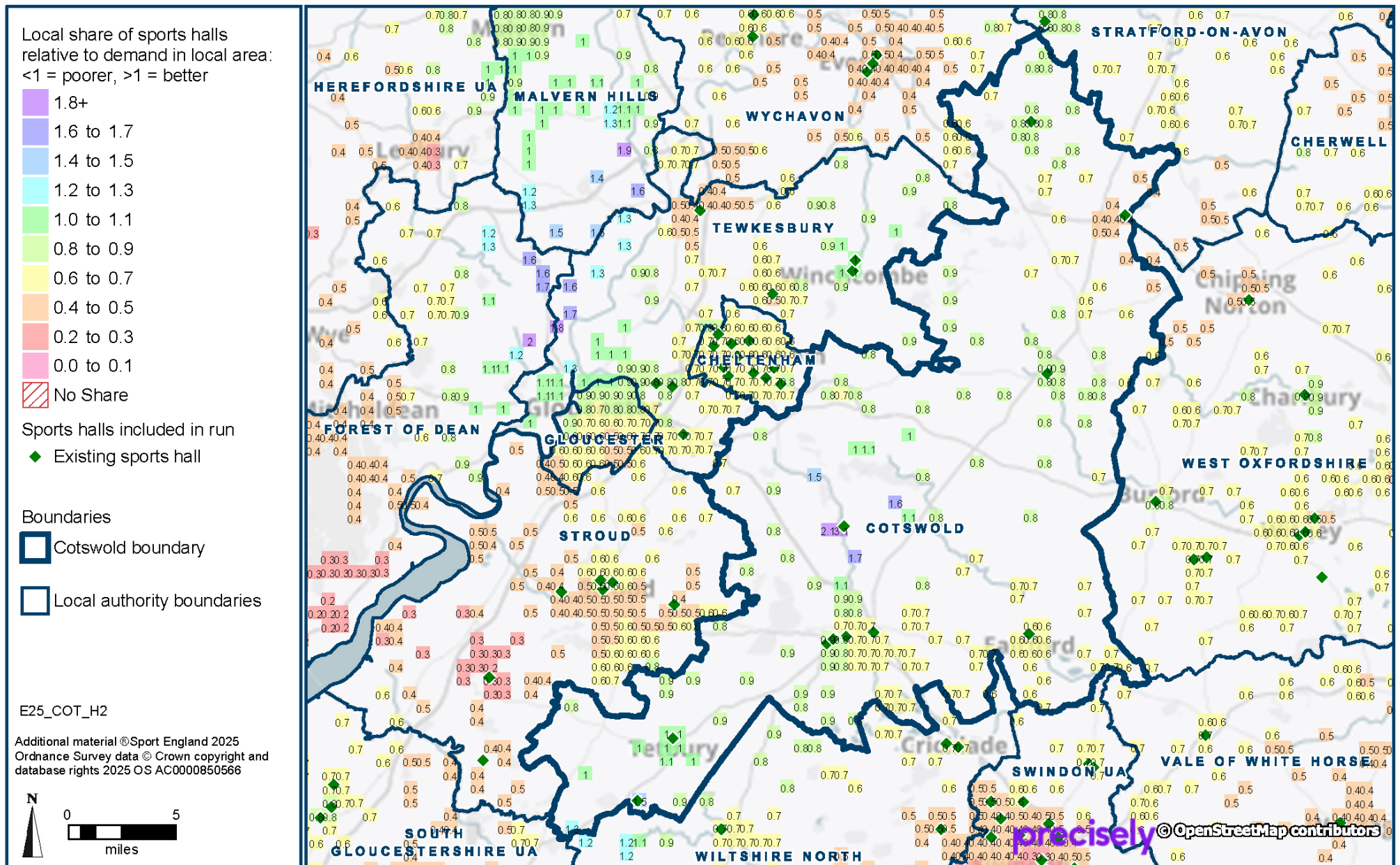
Courts per 10,000 Population	Run 1	Run 2
Area	2025	2043
Cotswold	6.8	5.9
Cheltenham	6.4	6.0
South Gloucestershire	3.3	2.8
Stratford-on-Avon	3.2	2.6
Stroud	3.1	2.7
Swindon	3.8	3.6
Tewkesbury	3.7	3.1
Vale of White Horse	4.9	4.1
West Oxfordshire	4.7	4.1
Wiltshire	4.2	3.9
Wychavon	2.7	2.3
South West Region	4.2	3.8
England	3.9	3.6

- 8.17 The findings on badminton courts per 10,000 population are set out because some local authorities like to compare their quantitative provision with that elsewhere; however, this does not set a standard of provision and should not be used as such.
- 8.18 The supply and demand assessment for sports halls in Cotswold is based on the findings from the previous six headings analysed in this report.

Map 8.1: Local Share of Sports Halls in 2025 (Run 1)



Map 8.2: Local Share of Sports Halls in 2043 (Run 2)



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
Fairford RFC	Activity	Private use
Hatherop Castle School	Main	Private use
Lechlade Memorial Hall and Pavilion	Activity x 2	Principal hall too small
National Star College	Activity	Principal hall too small
Paternoster School	Activity	Private use
Stow-On-The-Wold Primary School	Activity	Principal hall too small
The Chedworth Village Hall	Activity	Principal hall too small
Upper Rissington Village Hall and Playing Fields	Activity	Principal hall too small
Westwoods Centre	Activity	Principal hall too small

APPENDIX 2: FACILITIES IN NEIGHBOURING LOCAL AUTHORITY AREAS INCLUDED IN THE ASSESSMENT

Site	Provider	Facility Type	Dimensions (m)	Area (sqm)	Year Built	Year Refurb
Cheltenham						
All Saints Academy (Cheltenham)	Educational (in-house)	4-court	34.5 x 20	690	2011	
Ashley Manor Prep School	Educational (in-house)	3-court	27 x 18	486	1982	1995
Balcarras Sports Centre	Educational (in-house)	4-court	33 x 18	594	1985	2007
		Activity	18 x 10	180		
Bournside Sports Centre	Educational (in-house)	4-court	34 x 18	612	1999	
		4-court	33 x 18	594		
		3-court	27 x 18	486		
		Activity	21 x 12	252		
Cheltenham College	Educational (in-house)	8-court	45 x 32	1440	1996	2015
		3-court	27 x 18	486		
CLC Sports Centre	Educational (3rd party)	6-court	34.5 x 27	932	1994	2010
		6-court	34.5 x 27	932		
Dean Close School	Educational (in-house)	5-court	40 x 20	800	2006	
Leisure at Cheltenham	Public	7-court	34 x 30	1020	1971	2008
		4-court	33 x 18	594		
Pate's Grammar School	Educational (in-house)	4-court	34.5 x 20	690	1985	2008
St Edward's School (Cheltenham)	Educational (in-house)	3-court	27 x 18	486	1960	2000
YMCA Cheltenham Sports Centre	Other (pay & play)	4-court	34.5 x 20	690	2006	
South Gloucestershire						
Abbeywood Community School	Educational (in-house)	4-court	33 x 18	594	2000	
Bradley Stoke Active Lifestyle Centre	Public	4-court	34.5 x 27	932	1999	
Bradley Stoke Community School	Educational (in-house)	4-court	33 x 20	660	2005	2015
		Activity	17 x 10	170		
Brimsham Green School	Educational (in-house)	4-court	33 x 18	594	2008	
Chipping Sodbury School	Educational (in-house)	4-court	33 x 18	594	2010	
Downend Sports Centre	Educational (in-house)	4-court	31 x 18	558	2005	
Hanham Woods Academy	Educational (in-house)	4-court	33 x 18	594	2009	
		Activity	21 x 11	231		
John Cabot Academy	Educational (in-house)	4-court	34.5 x 20	690	1994	2015
Kingswood Active Lifestyle Centre	Public	4-court	33 x 19	627	1987	
Mangotsfield School	Educational (in-house)	4-court	35 x 18	630	1970	2005
Marlwood School	Educational (in-house)	4-court	33 x 18	594	1975	2012
		Activity	18 x 10	180		
Patchway Community School	Educational (in-house)	4-court	34.5 x 20	690	1982	
Sir Bernard Lovell Academy	Educational (in-house)	4-court	34.5 x 20	690	2010	2011

South Gloucestershire and Stroud College (Wise)	Educational (in-house)	4-court	32 x 30	960	2005	2011
The Castle School (Thornbury)	Educational (in-house)	4-court	34.5 x 20	690	2002	
		3-court	27 x 18	486		
Thornbury Active Lifestyle Centre	Public	5-court	40.6 x 21.35	867	1980	2019
		5-court	40.6 x 21.35	867		
Uwe Centre For Sport	Educational (in-house)	8-court	38 x 36	1368	2006	2010
Winterbourne Academy	Educational (in-house)	4-court	35 x 18	630	2010	
Yate Academy	Educational (in-house)	4-court	34.5 x 20	690	2012	
Yate Active Lifestyle Centre	Public	7-court	37 x 32	1184	1972	2010
Stratford-on-Avon						
Alcester Grammar School	Educational (in-house)	4-court	34.5 x 20	690	2005	
Kineton High School	Educational (in-house)	4-court	33 x 18	594	2024	
King Edward VI School	Educational (in-house)	4-court	33 x 18	594	1997	
		Activity	18 x 10	180		
Meon Vale Leisure Centre	Public	4-court	33 x 18	594	2014	
Southam College	Educational (in-house)	4-court	33 x 18	594	2019	
Stratford Girls' Grammar School	Educational (in-house)	4-court	34.5 x 20	690	2015	
Stratford Leisure Centre	Public	4-court	40 x 34.5	1380	1975	2015
Stratford Upon Avon School Community Sports Centre	Educational (in-house)	4-court	33 x 18	594	2002	
		Activity	17 x 9	153		
Studley Leisure Centre	Public	4-court	34.5 x 20	690	2002	
The Greig Leisure Centre	Public	3-court	30 x 18	540	1958	2020
Warwickshire College (Moreton Morrell Campus)	Educational (in-house)	4-court	34.5 x 20	690	2017	
Stroud						
Active Lifestyles Stroud	Public	6-court	32 x 28	896	1975	2013
Archway School	Educational (3rd party)	4-court	33 x 18	594	1998	2012
		Activity	18 x 10	180		
Marling School	Educational (in-house)	4-court	34.5 x 20	690	2004	
Rednock School	Educational (in-house)	4-court	33 x 18	594	2009	2019
Thomas Keble School	Educational (in-house)	4-court	33 x 18	594	2007	
Wotton Sports Centre	Other (pay & play)	4-court	34.5 x 20	690	1984	2007
		Activity	18 x 11.5	207		
Wycliffe College Senior School	Educational (in-house)	8-court	40 x 34.5	1380	2004	

Swindon						
Abbey Park School (Northside Campus)	Educational (in-house)	4-court	33 x 18	594	2007	
		Activity	18 x 17	306		
Croft Sports Centre	Public	5-court	36.5 x 21	767	1971	2011
David Lloyd (Swindon)	Commercial	3-court	27 x 18	486	2007	2018
Deanery Academy	Educational (in-house)	4-court	33 x 18	594	2019	
Dorcan Better Health And Recreation Complex	Public	4-court	33 x 18	594	1975	2004
		Activity	22 x 17	374		
Grange Leisure Centre	Public	4-court	34.5 x 20	690	1977	2014
Haydon Centre	Public	4-court	33 x 18	594	1991	2006
		Activity	17 x 9.5	162		
Highworth Recreation Centre	Public	4-court	33 x 18	594	1988	2004
		Activity	26 x 17	442		
Highworth Warneford School	Educational (in-house)	4-court	34.5 x 20	690	2015	2017
		Activity	18 x 10	180		
Kingsdown School Sports Centre	Educational (in-house)	4-court	34.5 x 20	690	1990	
Lydiard Park Academy	Educational (in-house)	4-court	34.5 x 20	690	1987	
New College Swindon	Educational (in-house)	4-court	34.5 x 20	690	2005	2017
Nova Hreod Academy	Educational (in-house)	4-court	34.5 x 20	690	2007	
		Activity	18 x 10	180		
Ridgeway Leisure Centre	Educational (in house)	5-court	40.5 x 20	810	1976	1995
		Activity	18 x 18	324		
St Josephs Catholic College	Educational (in-house)	4-court	33 x 18	594	2006	2017
		Activity	18 x 10	180		
Swindon Academy	Educational (in-house)	4-court	34.5 x 20	690	2009	
Tewkesbury						
Brockworth Sports Centre	Educational (3rd party)	4-court	34.5 x 20	690	1968	2016
Chosen Hill School	Educational (in-house)	4-court	33 x 18	594	2005	
		Activity	18 x 10	180		
		Activity	18 x 10	180		
Churchdown School Academy	Educational (in-house)	3-court	27 x 18	486	1976	
Churchdown School Academy	Educational (in-house)	Activity	18 x 10	180		
Cleeve Sports Centre	Educational (in-house)	4-court	34.5 x 20	690	1970	2014
Tewkesbury School Sports Centre	Educational (in-house)	4-court	33 x 18	594	1969	2011
		Activity	17 x 9	153		
Winchcombe School	Educational (in-house)	4-court	33 x 18	594	2021	
		Activity	18 x 10	180		
Winchcombe Sports Hall	Other (pay & play)	3-court	27 x 18	486	1992	2016

Vale of White Horse						
Abingdon and Witney College (Abingdon Campus)	Educational (in-house)	4-court	33 x 18	594	1990	2009
Abingdon School And Sports Centre	Educational (in-house)	4-court	34.5 x 20	690	1960	2008
Aureus Secondary School	Educational (in-house)	3-court	32 x 19	608	2017	
Faringdon Leisure Centre	Educational (3rd party)	6-court	34.5 x 27	932	1990	2010
John Mason School	Educational (in-house)	4-court	34.5 x 20	690	1960	
		Activity	18 x 10	180		
King Alfred's Academy (West Site)	Educational (in-house)	4-court	34.5 x 20	690	2018	
		Activity	18 x 10	180		
Larkmead School	Educational (in-house)	4-court	33 x 18	594	1975	
		Activity	18 x 10	180		
Matthew Arnold School	Educational (in-house)	4-court	33 x 18	594	1995	
		Activity	18 x 10	180		
Our Lady's Abingdon School	Educational (3rd party)	4-court	34.5 x 20	690	1978	
Radley College Sports Centre	Educational (in-house)	5-court	40.6 x 21.35	867	1985	2013
St Helen and St Katharine	Educational (in-house)	6-court	34.5 x 27	932	2016	
		Activity	18 x 17	306		
Wantage Leisure Centre	Public	4-court	33 x 18	594	1976	2005
White Horse Leisure and Tennis Centre	Public	8-court	40 x 34.5	1380	2002	
West Oxfordshire						
Bartholomew Sports Centre	Educational (3rd party)	4-court	33 x 18	594	2007	
Burford School	Educational (in-house)	4-court	34.5 x 20	690	1989	
		Activity	18 x 10	180		
Carterton Community College	Educational (in-house)	4-court	34.5 x 20	690	1995	
		Activity	18 x 10	180		
Carterton Leisure Centre	Public	4-court	34.5 x 20	690	2020	
Charlbury Community Centre	Other (pay & play)	4-court	36 x 18	648	2017	
Chipping Norton Leisure Centre	Educational (3rd party)	4-court	33 x 18	594	2002	
Cokethorpe School	Educational (in-house)	4-court	34.5 x 20	690	1995	2007
The Henry Box School	Educational (in-house)	4-court	34.5 x 20	690	2001	
		Activity	18 x 10	180		
The Marlborough Church of England School	Educational (in-house)	4-court	33 x 18	594	1984	2010
Windrush Leisure Centre	Public	4-court	34.5 x 20	690	1975	2017
		Activity	18 x 17	306		
Wood Green School	Educational (in-house)	4-court	34.5 x 20	690	1995	
		Activity	18 x 10	180		

Wiltshire Kennet						
Dauntsey's School	Educational (in-house)	4-court	34.5 x 20	690	1978	2011
Devizes Leisure Centre	Public	4-court	34.5 x 20	690	1990	2008
Lavington School	Educational (in-house)	3-court	27 x 18	486	2005	
		Activity	18 x 17	306		
Marlborough College	Educational (in-house)	4-court	34.5 x 20	690	1988	
		Activity	18 x 10	180		
Marlborough Leisure Centre	Public	4-court	33 x 18	594	1992	2014
		Activity	18 x 10	180		
St John's Marlborough	Educational (in-house)	4-court	34.5 x 20	690	2009	
		4-court	33 x 18	594		
The Wellington Academy	Educational (in-house)	5-court	30 x 27	810	1977	2010
		Activity	18 x 10	180		
Tidworth Leisure Centre	Other (sport club)	8-court	36 x 33	1188	2000	2007
		Activity	18 x 10	180		
Vale Community Campus	Public	4-court	37 x 20	740	2018	
Wiltshire North						
Abbeyfield School	Educational (in-house)	4-court	34.5 x 20	690	2000	
Bradon Forest School	Educational (in-house)	4-court	34.5 x 20	690	1960	
Calne Community Campus	Public	5-court	40.6 x 21.35	867	1976	2020
Cricklade Leisure Centre	Other (pay & play)	5-court	40.5 x 20	810	1978	2010
Cricklade Manor Prep School	Educational (in-house)	4-court	33 x 18	594	2000	
Hardenhuish School	Educational (in-house)	4-court	33 x 18	594	2002	
		Activity	18 x 10	180		
Lime Kiln Leisure Centre	Public	5-court	40.6 x 21.35	867	1973	2000
Olympiad Leisure Centre	Public	6-court	34 x 27	918	1989	
Sheldon School	Educational (in-house)	4-court	37 x 18	666	1975	2012
Springfield Community Campus	Public	4-court	34.5 x 20	690	1988	2015
St Marys Calne Sports Centre	Educational (in-house)	4-court	34.5 x 20	690	2017	
The Activity Zone	Public	4-court	33 x 18	594	1999	2005
Wiltshire Salisbury						
Amesbury Sports Centre	Educational (3rd party)	5-court	40.6 x 21.35	867	1974	2008
Avon Valley Academy	Educational (in-house)	4-court	34.5 x 20	690	2011	
		Activity	18 x 10	180		
Bishop Wordsworths School	Educational (in-house)	4-court	34.5 x 20	690	2004	
Chafyn Grove School	Educational (in-house)	4-court	34.5 x 20	690	1916	
Downton Leisure Centre	Other (pay & play)	4-court	33 x 18	594	1996	2021
Five Rivers Health and Wellbeing Centre	Public	8-court	40 x 34.5	1380	1992	2006
Nadder Centre	Public	4-court	33 x 18	594	1990	2012

Sarum Academy	Educational (in-house)	4-court	36.4 x 18	655	1985	2013
		Activity	17 x 9	153		
The Godolphin School	Educational (in-house)	4-court	33 x 18	594	1981	
Wyvern St Edmund's Academy	Educational (in-house)	5-court	40.6 x 21.35	867	1965	2007
Wiltshire West						
John of Gaunt School	Educational (in-house)	5-court	33 x 23	759	1960	2005
		Activity	18 x 10	180		
Leighton Recreation Centre	Public	4-court	36 x 18	648	1994	2015
Matravers School	Educational (in-house)	4-court	34.5 x 20	690	2004	
		Activity	18 x 10	180		
Melksham Community Campus	Public	6-court	34 x 27	918	2022	
Melksham Oak Community School	Educational (in-house)	4-court	33 x 18	594	2010	
St Augustine's Catholic Technology College	Educational (in-house)	4-court	34.5 x 20	690	1999	
St Laurence School	Educational (in-house)	5-court	40 x 21.35	854	1980	2001
		Activity	18 x 10	180		
Stonar School	Educational (in-house)	4-court	34.5 x 20	690	1990	2000
Trowbridge Sports Centre	Public	5-court	40.6 x 21.35	867	1965	2005
		Activity	18 x 10	180		
Warminster Sports Centre	Public	5-court	40.6 x 21.35	867	1973	2005
Wiltshire College Trowbridge	Educational (in-house)	4-court	34.5 x 20	690	1985	1999
Wychavon						
Dodderhill School	Educational (in-house)	3-court	27 x 18	486	1999	
Droitwich Spa High School	Educational (3rd party)	4-court	33 x 18	594	1975	2004
		Activity	18 x 10	180		
		Activity	18 x 10	180		
Droitwich Spa Leisure Centre	Public	4-court	32 x 18	576	1985	2005
Evesham Leisure Centre	Public	4-court	33 x 18	594	2009	
Persnore High School	Educational (in-house)	4-court	34.5 x 20	690	1960	1999
		Activity	18 x 10	180		
Persnore Leisure Centre	Public	3-court	27 x 18	486	2002	
Prince Henry's Sports Complex	Educational (in-house)	4-court	33 x 18	594	1997	
		Activity	17 x 9	153		
Wallace House Community Centre	Other (pay & play)	3-court	27 x 18	486	1969	

APPENDIX 3: 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 the following facilities that Sport England holds substantial demand data for:
 - sports halls
 - swimming pools
 - indoor bowls centres
 - artificial grass pitches (AGPs)

2 Use of FPM

- 2.1 The FPM is one of Sport England's principal tools and has been developed as a means for:
 - Assessing the requirements for different types of community sports facilities on a local, regional and 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 need for sports facilities.
- 2.2 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 capacity of facilities (supply) within an area against the demand for that facility from the local population, similar to other social gravity models.
- 3.3 To do this, the FPM converts both demand (in terms of people) and supply (facilities) into a single comparable unit. This unit is 'visits in the weekly peak period'. 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 their age and gender, how often they visit, the distance travelled, duration of stay, as well as information on the facilities themselves such as programming, peak times of use and capacity of facilities.
- 3.5 This survey information is combined with other data sources 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 previously formed the basis for the National Benchmarking Service. 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 National Benchmarking Service 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 approximately 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 (now ceased):
 - This was a centre-based survey whose primary purpose was to enable centres to benchmark themselves against other centres. Sample interviews were conducted on site. The number of people surveyed varied by year depending on how many centres took part. Approximately 10,000 swimmers and 3,500 sports hall users were surveyed per year. This data was used for journey

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

- Moving Communities Customer Experience Survey:
 - Annual online survey distributed by participating local authorities and operators via email. Email invites are sent to any member or customer on their database who has attended their leisure centre in the last 3 months. The results inform the travel mode that residents use to access facilities.
- Scottish Health:
 - Annual survey of approximately 6,600 people (just under 5,000 adults). This data is primarily used to assess participation, frequency and activity duration.

3.7 Other data is used where available. For example, the following data sources are among those that 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 and Social Care Information Centre, Lifestyle Statistics, 2012
- Young People and Sport, Sport England, 2002
- Data from Angus Council, 2013/14
- National Pools and Halls Survey, 1996
 - This survey was 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 population¹. This produces the number of visits for that facility that will be demanded by the population.
- 4.2 Depending on the age and gender composition of the population, this will affect the number of visits an area will generate. In order to reflect the different population profiles 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

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 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 178,600 OAs in England. An OA has a target value of 125 households per OA.

information. Each OA used is given a demand value in visits in the weekly peak period by the FPM.

5 Calculating Supply Capacity

5.1 A facility's capacity varies depending on the following factors:

- Its size (area of pool or hall, number of pitches or rinks)
- How many hours the facility is available for use by the community in the weekly peak period
- How many visits can be accommodated by the facility at any one time (pools = 1 user/6 sqm, main halls/barns = 8 users/court, activity halls/studios = 15 users/court, AGPs = 28 users/pitch, indoor bowls = 6 users/rink)

5.2 The FPM calculates the maximum number of visits that a facility can accommodate, which gives it a theoretical capacity in visits in the weekly peak period.

5.3 Based on travel time information (see Travel Time section) taken from the user surveys, the FPM then calculates how much demand would be met by the facility, having regard to its capacity and how much demand can travel to the facility. 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 access 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 has a total demand for five facilities and there are currently six facilities within the area, it would be too simplistic to conclude that there is an over-supply of one facility as this approach would not take account of whether the five facilities are in the correct location for local people to use them within that area. It may be that all the facilities are 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 a neighbouring authority.

6 Calculating the Capacity of Sports Halls – Badminton Court Equivalents

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 visits in the weekly peak period. In order for this capacity to be meaningful, these visits are converted into the equivalent of main hall badminton

courts. This 'court' figure is often mistakenly read as being the same as the number of 'marked courts' at the sports halls 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 badminton court equivalents are of all the main and activity halls' capacities; this is calculated based on hall size (area) and whether it is a main hall or an activity hall. This gives a more accurate reflection of the overall capacity of the halls than simply using the 'marked courts' figure, for two reasons:

- In calculating the capacity of halls, the model uses a different at-one-time parameter for main halls and for activity halls. Activity halls have a greater at-one-time capacity than main halls. Marked courts can sometimes not properly reflect the size of the actual main hall. For example, a hall may be marked out with four courts, when it has space for three courts. As the model uses the 'courts' as a unit of size, it is important that the hall's capacity is included as a 'three-court unit' rather than a 'four-court unit'.
- It is often difficult to visualise how much hall space there is when expressed as visits in the weekly peak period. To make things more meaningful, this capacity is converted back into badminton court equivalents and is noted in the output tables 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 sports hall and swimming pool modelling.

7.2 Attractiveness weightings are based on the following:

- Age and 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, here 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 70 years old 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 these halls will generally not provide as balanced a programme as 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-and-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 weighting curves are used:

- High weighted curve – includes non-education management (third party) and a more balanced programme, therefore more attractive
- Lower weighted curve – includes educational halls managed in-house, therefore less attractive

7.4 Commercial facilities (halls and pools): While there are relatively few sports halls provided by the commercial sector, an additional weighting factor is incorporated within the model to reflect the cost element often associated with commercial facilities. For each population OA, 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 in England. IMD is an overall relative measure of deprivation constructed by combining seven domains of deprivation according to their relative weights.

8 Used Capacity

8.1 Used capacity refers to how much of a facility's theoretical capacity is being used. At first this can appear to be unrealistically low, with local authority 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. In practice this 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.

8.2 For example, a 25m four-lane pool has a theoretical capacity of 2,260 visits per week during a 52.5-hour peak period. 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 19:00 and 20:00 and lane swimming between 20:00 and 21:00 (see table below). Other sessions will be quieter, such as between 21:00 and 22:00. 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 used capacity for the evening would be 54%.

Visits per hour	16:00-17:00	17:00-18:00	18:00-19:00	19:00-20:00	20:00-21:00	21:00-22:00	Total visits for the evening
Theoretical maximum capacity	44	44	44	44	44	44	264
Actual usage	8	30	35	50	15	5	143
% of capacity used	18%	68%	80%	114%	34%	11%	54%

9 Comfort Factor – Halls and Pools

- 9.1 If the facilities were full to their theoretical capacity, 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.
- 9.2 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 indicating where a facility starts to become uncomfortably busy. This should be seen only as a guide to help flag when facilities are becoming busier, rather than as a 'hard threshold'.
- 9.3 The comfort factor is also used to increase the capacity 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 previously noted.
- 9.4 The comfort factor is not applied to AGPs due to the fact they are predominantly used by teams that have a set number of players, therefore, the notion of having a 'less busy' pitch is not applicable.

10 Travel Times

- 10.1 The model includes three different modes of travel:
- driving
 - walking and wheeling
 - public transport and cycling
- 10.2 Car access is also considered. In areas where there is less access to a car, the model reduces the number of visits made by car and increases those made on foot for shorter journeys and public transport for longer journeys.
- 10.3 Overall, surveys have shown that most visits to swimming pools, sports halls and AGPs are made by driving, with a significant minority of visits to facilities being made on foot.

Facility	Driving	Walking	Public Transport	Cycling
Swimming Pool	74%	18%	4%	4%
Sports Hall	76%	19%	2%	3%
AGP Combined	79%	18%	3%	unknown
AGP Football	74%	22%	4%	
AGP Hockey	97%	2%	1%	

- 10.4 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 coverage for sports halls and swimming pools.

Minutes	Swimming Pools		Sport Halls	
	Drive	Walk	Drive	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%

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

Minutes	AGP Combined		AGP Football		AGP Hockey	
	Drive	Walk	Drive	Walk	Drive	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

- 10.6 Ordnance Survey's Multi-Modal Network with average speed data is used to calculate the off-peak drive times between facilities and the population, observing any one-way and turn restrictions that apply. These travel times have been validated against national survey work, and therefore are based on the actual travel patterns of users.
- 10.7 The network is also 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.
- 10.8 Due to the complexity of public transport timetables, public transport travel times in the model are assumed to be twice as long as driving times.
- 10.9 A cycling speed of 12 mph is used for roads and shared use cycleways, which is approximately half the average speed of driving in urban areas. A speed of 7.5 mph is used for tracks and off-road travel.

Facility Inclusion Criteria

Sports Halls

The following inclusion criteria were used for this analysis.

- Include all operational sports halls available for community use, ie, pay-and-play, membership, sports club/community association.
- Exclude all halls not available for community use, ie, 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 is included based on similar facility types.
- Where the year built is missing, assume date 1975³.

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

³ Choosing a date in the mid-1970s ensures that the facility is included, while 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 activity 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><tr><td>Age</td><td>0-15</td><td>16-24</td><td>25-34</td><td>35-44</td><td>45-59</td><td>60-79</td></tr><tr><td>Male</td><td>21.7%</td><td>16.3%</td><td>12.9%</td><td>10.8%</td><td>9.2%</td><td>6.4%</td></tr><tr><td>Female</td><td>24.7%</td><td>16.8%</td><td>15.1%</td><td>13.6%</td><td>13.5%</td><td>10.7%</td></tr></table>							Age	0-15	16-24	25-34	35-44	45-59	60-79	Male	21.7%	16.3%	12.9%	10.8%	9.2%	6.4%	Female	24.7%	16.8%	15.1%	13.6%	13.5%	10.7%
Age	0-15	16-24	25-34	35-44	45-59	60-79																						
Male	21.7%	16.3%	12.9%	10.8%	9.2%	6.4%																						
Female	24.7%	16.8%	15.1%	13.6%	13.5%	10.7%																						
Frequency per Week	<table><tr><td>Age</td><td>0-15</td><td>16-24</td><td>25-34</td><td>35-44</td><td>45-59</td><td>60-79</td></tr><tr><td>Male</td><td>0.60</td><td>0.96</td><td>0.88</td><td>0.80</td><td>0.94</td><td>1.02</td></tr><tr><td>Female</td><td>0.65</td><td>1.20</td><td>1.14</td><td>1.01</td><td>1.11</td><td>0.96</td></tr></table>							Age	0-15	16-24	25-34	35-44	45-59	60-79	Male	0.60	0.96	0.88	0.80	0.94	1.02	Female	0.65	1.20	1.14	1.01	1.11	0.96
Age	0-15	16-24	25-34	35-44	45-59	60-79																						
Male	0.60	0.96	0.88	0.80	0.94	1.02																						
Female	0.65	1.20	1.14	1.01	1.11	0.96																						
Peak Period	Weekday: 9:00 to 10:00, 17:00 to 22:00 Weekend: 08:00 to 16:00 Total: 46.0 hours																											
Proportion in Peak Period	62%																											

