

Facilities Planning Model Assessment of
Sports Hall Provision for
Exeter City Council

Bespoke Report

26 June 2024

This document has been produced by ORH on behalf of Sport England for Exeter City Council on 26 June 2024. This document can be reproduced by Exeter City Council, subject to it being used accurately and not in a misleading context. When the document is reproduced in whole or in part within another publication or service, the full title, date, and accreditation to Sport England must be included.

ORH is the trading name of Operational Research in Health Limited, a company registered in England with company number 2676859.

Disclaimer

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

Accreditations

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

Ordnance Survey data © Crown copyright and database right. All rights reserved Sport England 100033111 2024.

National Statistics data © Crown copyright and database right 2024.

Population distribution based on 2021 Census data for output areas. Population for 2023 and 2034 modified by 2018-based Subnational Population Projections for Local Authorities. Adapted from data from the Office for National Statistics licensed under the Open Government Licence v.3.0. London boroughs modified by © GLA 2021-based demographic projections – ward populations, identified capacity scenario.

Index of Multiple Deprivation data contains public sector information licensed under the Open Government Licence v3.0.

EXECUTIVE SUMMARY

Introduction

- 0.1 Exeter City Council (also referred to as Exeter, or the Council area) is reviewing its current provision of sports halls and assessing the future demand and level of provision required to 2034.
- 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:
- Run 1 – a baseline assessment of how the existing supply of sports halls meets the current levels of demand from the resident population in 2023
 - Run 2 – a forward assessment of demand for sports halls and its distribution, based on the projected changes in population between 2023 and 2034, including committed changes to sports hall supply
 - Run 3 – an assessment of the impact that the modelled option for change in supply has in meeting the demand for sports hall and its distribution up to 2034
- 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, 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 Exeter's supply of sports halls can meet current and future demand based on this assessment. There is no requirement to increase sports hall provision.
- 0.7 There is a small increase in demand for sports halls to 2034. The percentage increase is higher in the neighbouring authorities.
- 0.8 The sports halls are estimated to be reasonably full at peak times in both 2023 and 2034. However, Wonford Sports Centre is completely full in both years and Riverside Leisure Centre almost completely full. Three educational sports halls are also uncomfortably full at peak times, based on the hours they are available.
- 0.9 Increasing availability and capacity could achieve a better overall balance between supply and demand.
- 0.10 The stock is ageing, but overall there is a good modernisation track record of sports halls that were built before 2005.

Key Findings

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

1. In all runs, between 22% and 23% of the total supply is unavailable for community use in the weekly peak period. There is scope to increase capacity for community use.
2. The educational sector provides 78% of the available capacity in Run 1 and 79% in Runs 2 and 3. This sector has the greatest capacity to increase availability for community use. To achieve this, it will require negotiation between Exeter City Council and each individual college or school. If a community use agreement (CAU) is not in place, then this should be the focus for the negotiation to increase access. The public leisure centres provide 20% of the available capacity in Run 1 and 19% in Runs 2 and 3. Availability can only be increased at the refurbished Wonford Sports Centre.
3. Exeter's population is projected to increase by 6% between 2023 and 2034. This produces a 4% increase in demand for sports halls, equating to 1.5 courts and a total demand for 41.2 courts.
4. In all three runs 96% of Exeter's demand is met. The number of visits met in the weekly peak period increases from 11,181 in Run 1 to 11,608 visits in Run 2, and 11,614 visits in Run 3.
5. Almost all of Exeter's met demand is retained within the Council area, and in Run 1 is 98%. In Run 2 the proportion decreases to 95%, but the number of visits increases from 10,976 to 10,996 due to increase in demand. In Run 3, met demand is 94% with 10,894 visits.
6. Unmet demand is 4% in all three runs, the equivalent of between 1.7 courts and 1.8 courts. Nearly all unmet demand is too far from a facility. Unmet demand from lack of sports hall capacity is 0.1 courts in all three runs.
7. In Run 3 the location where the most unmet demand can be met is at Middlemoor Police Headquarters in the west of Exeter, at 0.9 courts. There is an insufficient unmet demand to consider the provision of a new sports hall to improve accessibility for residents. (The modelling includes the former four-court sports hall at this site with 14 hours of community use. This was replaced with a new sports hall of the same scale and on the same site in 2023. It is understood there is no community use at the new sports hall.)
8. The overall estimated used capacity of sports halls in the weekly peak period is between 70% in Run 3 and 72% in Run 2. However, six sports halls are uncomfortably full, at 80% or above. These are:
 - Exeter College
 - Isca Academy
 - Riverside Leisure Centre
 - St James School (Runs 1 and 2)
 - St Luke's Science and Sports College
 - Wonford Sports Centre

Interventions and Next Steps

- 0.12 The quantitative and spatial findings identify that there is a sufficient supply across Exeter to meet demand in 2023 and 2034. However, the distribution of demand and the hours the sports halls are available for community use means that some sports halls are either completely full or uncomfortably full at peak times. (The peak period hours are set out in Appendix 3: Model Parameters.)
- 0.13 The intervention is to increase access for community use at existing sites and provide a more balanced distribution of met demand across Exeter. The intervention needs to be kept in perspective. The scope to make more use of what already exists is limited. It will reduce the problem but not resolve it, whereby all sports halls are comfortably full not uncomfortably full.
- 0.14 Riverside Leisure Centre:
- Available for the maximum 46 hours in the weekly peak period in all three runs. There is no scope to increase availability and reduce capacity used at peak times.
- 0.15 Wonford Sports Centre:
- 100% utilised in all three runs. Availability can be increased by five hours in the weekly peak period, accommodating a further 160 visits and reducing the proportion of used capacity. A limited increase but important given it is to be modernised and thereby increasing its attractiveness. Furthermore, it has both a main hall and an activity hall, so can accommodate more activities.
 - Its location meets some of the demand in the centre and southeast of Exeter and, as there are only two sports hall in this area, it is an important site in terms of accessibility.
- 0.16 There is more scope at the educational sites. Increasing access for community use will require negotiation between Exeter City Council and each individual college or school. Based on the FPM findings, the sites of most importance are as follows.
- 0.17 St Luke's Science and Sports College Centre and Isca Academy:
- Both are 100% utilised in all three runs. Availability can be increased by up to seven hours at peak times (to 41 hours) and increase capacity by a further 224 visits at each centre.
 - They are very similar sports halls; both sites opened in 2006 and have a four-court hall. St Luke's Science and Sports College Centre sports hall is marginally more beneficial because its dimensions are 34.5m x 20m, the recommended size promoted by Sport England for community sport. This makes it suitable for all sports at community level and for club development. Isca Academy sports hall has dimensions of 33m x 18m. Both sites are located close to growth areas.
 - Community use at both sites is managed by an external operator; at St Luke's Science and Sports College Centre by Exeter Bookings and at Isca Academy by Fusion School Services. This suggests a strong commitment to maximising community use and bookings by both the college and school. They are more likely to be supportive of increasing community use.

0.18 St James School:

- 94% utilised in Run 1, 84% in Run 2 and 77% in Run 3, just below the halls full comfort level of 80%. Availability can be increased by seven hours in the weekly peak period (to 41 hours), accommodating a further 224 visits.
- The centre has a three-court hall and an activity hall, opened in 1993 and was modernised in 2006.
- It is located in an area of quite low demand, with no demand north of the site to the East Devon border. Cranbrook Sports Hall in East Devon is modelled as an option to open in Run 3, hence why the used capacity decreases in Run 3. However, the sports hall remains a very busy site. It is an important site in retaining access to a sports hall for residents in the north of Exeter.

0.19 Exeter College:

- 83% utilised in Run 1, 94% in Run 2 and 91% utilised in Run 3. It is the most recent sports hall to open in 2019. Availability is for 41 hours in the weekly peak period. In effect, it is already available for the maximum time for community use at an educational site, and this is unlikely to be increased because the sports hall will be used for curriculum activities during term weekday daytimes. Its inclusion is to note the importance of this site in being uncomfortably full.

0.20 It is evident that the educational sports hall supply is important in catering for community use. It is essential therefore that a CUA is in place at each school/college to protect this supply.

0.21 Furthermore, a CUA should be put in place at any new or replacement educational sports hall site. Sport England will advise on the requirements as part of the planning process. Beyond putting this in place, it is essential that Exeter City Council monitors the actual delivery of the CUA.

0.22 These interventions are based on the FPM findings and should be considered as a key part of the all-round evidence base. 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 2034 and beyond.

Contents

1	Introduction	1
2	Sports Hall Supply	4
3	Demand for Sports Halls	12
4	Accessibility	19
5	Satisfied Demand for Sports Halls	26
6	Unmet Demand for Sports Halls	32
7	Used Capacity of Facilities.....	38
8	Local Share of Facilities	46
	Appendix 1: Facilities Excluded	52
	Appendix 2: Facilities in Neighbouring Local Authority Areas Included in the Assessment	53
	Appendix 3: Model Description, Inclusion Criteria and Model Parameters.....	54

1 INTRODUCTION

- 1.1 Exeter City Council (also referred to as Exeter, or the Council area) is reviewing its current provision of sports halls and assessing the future provision required up to 2034.
- 1.2 The strategic drivers for the work are to understand:
- How the supply of sports halls is meeting demand in 2023 and 2034
 - The impact population change and residential development has in meeting the demand for sports halls and its distribution up to 2034
 - The impact modelled changes in the supply of sports halls has in meeting the demand for sports halls and its distribution up to 2034
- 1.3 The outputs from the FPM assessment will inform:
- Exeter City Council's strategic planning review of sports halls provision and future strategy
 - Exeter City Council's inward investment strategy for sports hall provision, including developer contributions towards the cost of further provision
 - The evidence base that contributes to the development of planning policy for the provision of indoor sports facilities
- 1.4 The sequence of work is based on assessments known as runs, and these are set out in the Executive Summary.

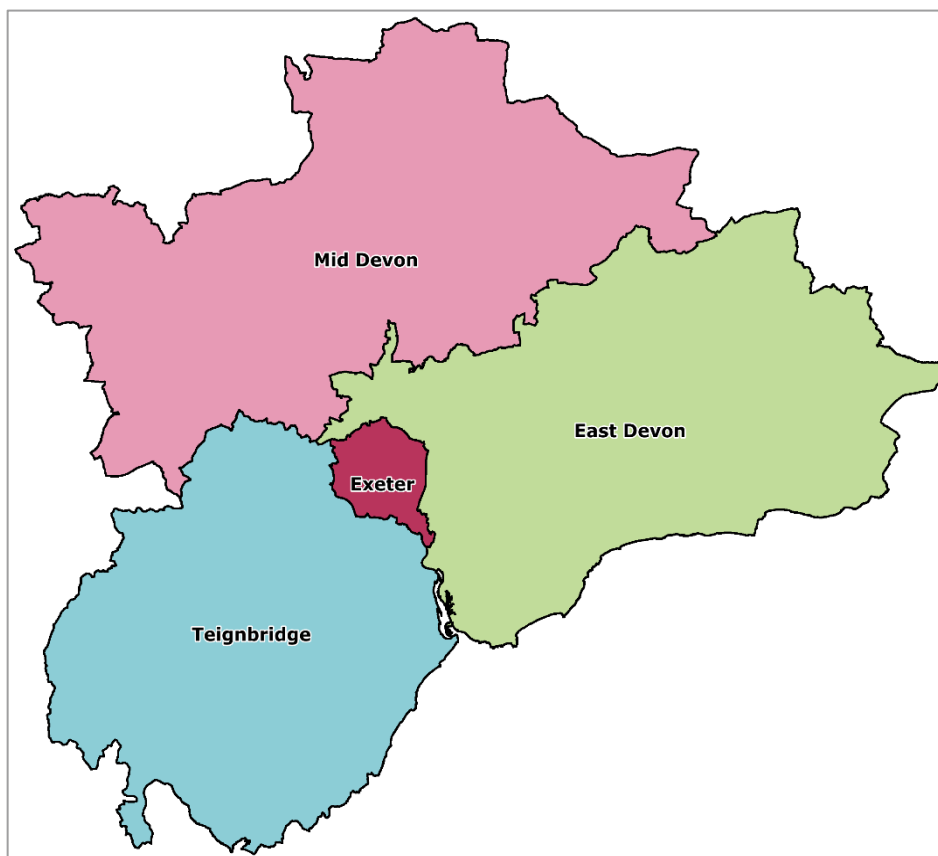
The Study Area

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

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

- 1.9 To take account of these factors, the study area places Exeter City Council area at its centre and includes the neighbouring local authorities.

Map 1.1: Study Area for the Exeter Sports Halls Assessment



Report Structure, Content and Sequence

- 1.10 The findings for the Exeter assessment are set out in a series of tables for the three runs. This allows a 'read across' to see the specific impact of changes between Runs 1 and 3 and builds up the picture of change.
- 1.11 The headings for each table are:
- | | |
|--------------------|-----------------|
| • Supply | • Unmet Demand |
| • Demand | • Used Capacity |
| • Accessibility | • Local Share |
| • Satisfied Demand | |
- 1.12 The terms listed above are defined beneath the tables.

- 1.13 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.
- 1.14 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 the proportion of met demand compare with those of neighbouring local authorities.
- 1.15 The key findings in each of the sections are numbered and highlighted in bold typeface.
- 1.16 The facilities excluded from the study, with explanations, are listed in Appendix **1**. Details of the sports halls in the neighbouring local authority areas for the assessment are set out in Appendix **2**. The FPM and its parameters are described in Appendix **3**.
- 1.17 All maps for the study are provided in a separate document as layered PDFs.

2 SPORTS HALL SUPPLY

The two public leisure centres in Exeter account for 15% of the total sites (Riverside and Wonford).

The educational sector provides ten sports hall sites, equating to 77% of the supply. Protecting and increasing access to sports halls for community use is important to ensure that there is enough available supply to meet demand.

The largest sports hall is the eight-court hall at University of Exeter Sports Park.

Table 2.1: Supply of Sports Halls in Exeter by Run

Total Supply	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
Number of sports halls	17	17	17
Number of sports hall sites	13	13	13
Supply in badminton court equivalents	66.0	66.0	66.0
Supply in courts scaled with hours available in peak period	51.3	50.9	50.9
Unavailable supply in the weekly peak period	22%	23%	23%
Supply in visits per week in peak period	18,894	18,734	18,734
Average age of sites	37	48	48
Average age of public sites	36	47	47

Definition of supply – This is the supply or capacity of the sports halls available for community and club use in the weekly peak period. The supply is expressed in 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 all three runs there are 17 sports halls across 13 sites in Exeter. The facilities excluded from the study, with explanations, are listed in Appendix 1.
- 2.2 In Runs 2 and 3 the changes to supply in Exeter are:
 - University of Exeter Sports Park refurbished in 2028
 - Wonford Sports Centre refurbished in 2026
- 2.3 In Runs 2 and 3 Matford Brook Academy sports hall in Teignbridge is included, and modelled to open in 2025.
- 2.4 Run 3 models an option to include a new sports hall at Cranbrook in East Devon.

Table 2.2: Details of Sports Halls in Exeter Included in the Runs

Site	Operation	Facility Type	Dimensions (m)	Area (sqm)	Peak Hours	Total Hours	Capacity (visits)	Year Built	Year Refurb
Exeter College ¹	Edu. (in-house)	4-court	34.5 x 20	690	41	51	1,312	2019	
Exeter School	Edu. (in-house)	4-court	34.5 x 20	690	29	31	1,472	1970	2005
		Activity	18 x 10	180	29	31			
Isca Academy	Edu. (3rd party)	4-court	33 x 18	594	34	46	1,088	2006	
Magdalen Court School	Edu. (in-house)	3-court	27 x 18	486	34	44	816	1989	2005
Middlemoor Police Headquarters ²	Other	4-court	34.5 x 20	690	14	16	448	1970	2015
Riverside Leisure Centre	Public	6-court	34.5 x 27	932	46	101.5	2,208	1986	2018
St James School	Edu. (3rd party)	4-court	33 x 18	594	34	38	1,088	1993	2006
St Luke's Sports Centre	Edu. (3rd party)	3-court	27 x 18	486	27	52	1,154	1984	2011
		Activity	18 x 10	180	27	52			
St Luke's Science and Sports College	Edu. (3rd party)	4-court	34.5 x 20	690	34	44	1,088	2006	
The Maynard School	Edu. (in-house)	5-court	40.6 x 21.35	867	37	39.5	2,174	1964	2006
		Activity	18 x 10	180	37	39.5			
University of Exeter Sports Park (Run 1 only)	Edu. (in-house)	8-court	37 x 31.7	1173	46	103.5	2,944	1968	2013
University of Exeter Sports Park (Runs 2 and 3)		8-court	37 x 31.7	1173	46	103.5	2,944	1968	2028
West Exe Community Sports Centre	Edu. (3rd party)	4-court	33 x 18	594	34	38	1,630	1972	2001
		Activity	17 x 9	153	34	38			
Wonford Sports Centre (Run 1 only)	Public	4-court	33 x 18	594	46	102.8	1,472	1988	
Wonford Sports Centre (Runs 2 and 3)		4-court	33 x 18	594	41	75	1,312	1988	2026

¹ Modelled as a four-court hall but has six courts.

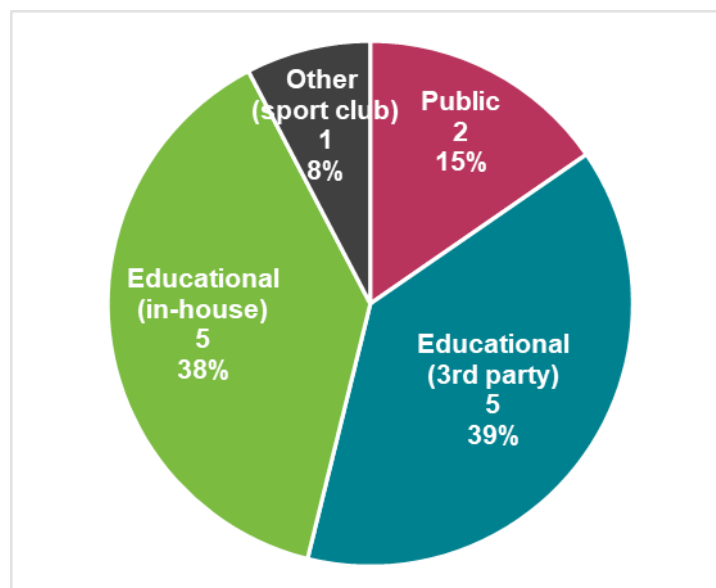
² Modelled with the sports hall that opened in 1970, refurbished in 2015 and with 14 hours of community use in the weekly peak period. The sports hall was replaced in 2023 with a new hall with the same dimensions. It does not have community use.

Exeter-wide Capacity

- 2.5 The total supply of sports halls in all runs is the equivalent of 66.0 badminton courts.
- 2.6 In Run 1, 51.3 courts are available for community use in the weekly peak period. In Run 2 the available capacity reduces to 50.9 courts due to the change in availability at Wonford Sports Centre.
- 2.7 **Key finding 1** is that, in all runs, between 22% and 23% of the total supply is unavailable for community use in the weekly peak period. There is scope to increase capacity for community use.
- 2.8 The supply in visits per week in the peak period is 18,894 in Run 1 and 18,734 in Runs 2 and 3.

Providers

Chart 2.1: Exeter Sports Hall Sites by Operation Type



- 2.9 In Exeter there are two public leisure centres included in all three runs. They account for 15% of the sites. The public sports halls are available to all residents and cater for recreational pay-and-play, and organised team and individual sports.
- 2.10 The educational sector is the largest provider, with 10 sites in all three runs and accounting for 77% of the sites in Exeter. Five sites are managed in-house, and five sites are actively managed by a third party. Community use at St Luke's Science and Sports College Centre is managed by Exeter Bookings. Community use at Isca Academy, St James Academy, St Luke's Sports Centre and West Exeter Academy is managed by Fusion School Services.
- 2.11 There is one other provider; Middlemoor Police Headquarters. The modelling included the former sports hall at this site, opened in 1970 and refurbished in 2015. The sports hall had 14 hours of community use in the weekly peak period. The sports hall was replaced in 2023

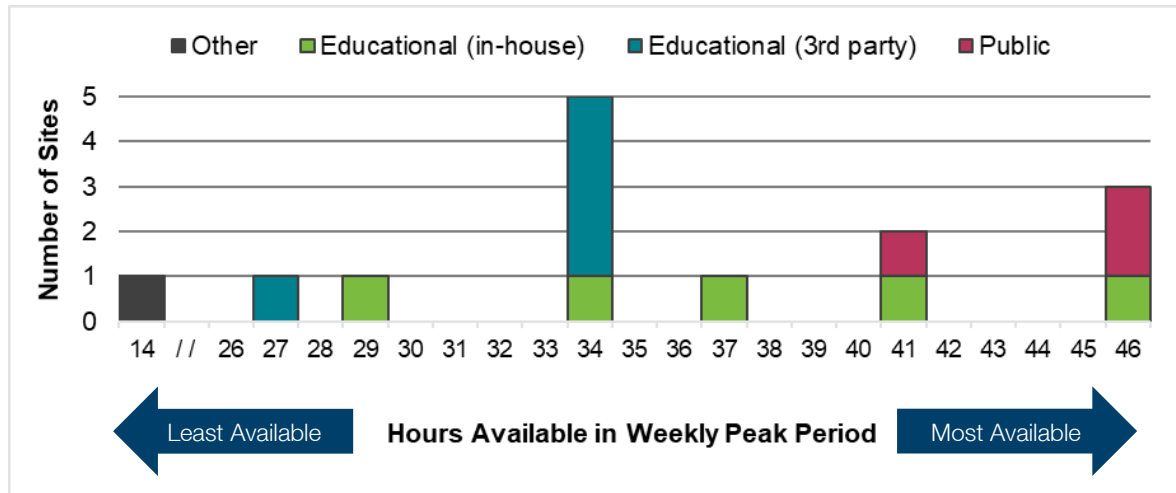
with a new four-court hall with the same dimensions. The sports hall is used for the training of police officers. It is understood that there is no community use.

Scale

- 2.12 There is one eight-court hall at University of Exeter Sports Park, which can host competitions.
- 2.13 There is a six-court hall at Riverside Leisure Centre and Exeter College (modelled as four courts). Both can accommodate multiple sport activities at the same time:
- 2.14 There are seven four-court halls, of which:
- Three 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.
 - Four have dimensions of 33m x 18m. This size of sports hall, while meeting the requirements for most indoor hall sports at the community level of participation, has less space between and behind individual courts.
- 2.15 Additionally, The Maynard School has a five-court hall. Magdalen Court School and St Luke's Sports Centre each have a three-court hall.
- 2.16 There are four educational venues that have both a main hall and an activity hall. Three of the activity halls have dimensions of 18m x 10m (180 sqm), and one has dimensions of 17m x 9m (153 sqm).
- 2.17 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.
- 2.18 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 lower participant numbers. The activity hall can accommodate smaller space activities such as martial arts, which have higher participant numbers.

Availability

Chart 2.2: Availability of Exeter Sports Halls by Site Type

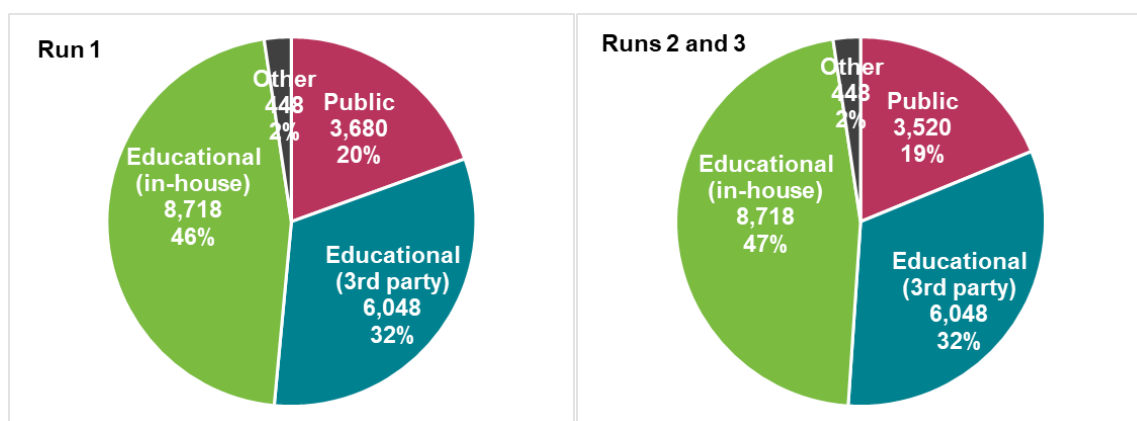


* Includes Wonford Sports Centre with 46 hours in Run 1 and 41 hours in Runs 2 and 3.

- 2.19 In Run 1 both of the public leisure centres are available for the maximum 46 hours in the weekly peak period. In Runs 2 and 3 the refurbished Wonford Sports Centre is modelled to be available for 41 hours.
- 2.20 Educational sites are unlikely to be available for more than 41 hours in the weekly peak period because they are not available for community use during weekday daytimes. However, University of Exeter Sports Park is available for the full weekly peak period.
- 2.21 Only Exeter College is available for 41 hours of community use per week. The other educational sites are available for between 27 hours and 37 hours in the weekly peak period, with five sites available for 34 hours.

Capacity

Chart 2.3: Exeter Sports Halls Capacity by Operation Type

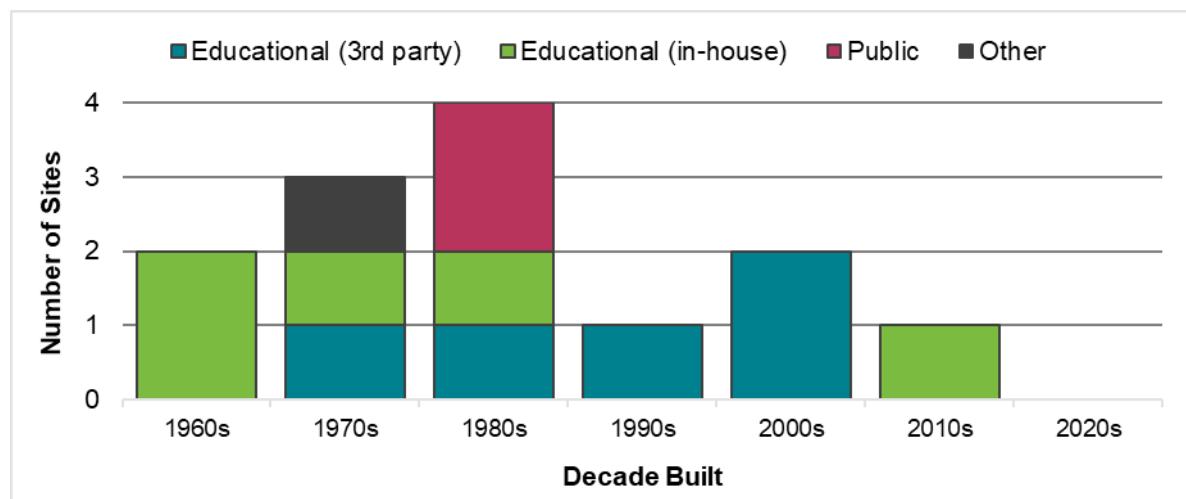


- 2.22 Together the public leisure centres provide 20% of the available capacity in Run 1, and 19% in Runs 2 and 3.

- 2.23 Riverside Leisure Centre has the larger capacity of the two sites and the second largest capacity in Exeter, at 2,208 visits in the weekly peak period.
- 2.24 Wonford Sports Centre has a capacity of 1,472 visits in Run 1, but reduces to 1,312 visits in Runs 2 and 3 due to its change in availability.
- 2.25 The educational sector provides 78% of the available capacity in Run 1, and 79% in Runs 2 and 3.
- 2.26 University of Exeter Sports Centre has the largest the capacity in Exeter at 2,944 visits in the weekly peak period.
- 2.27 Of the educational sites, Magdalen Court School has smallest capacity, at 816 visits.
- 2.28 A summary of **Key finding 2** is that the educational sector provides 78% of the available capacity in Run 1, and 79% in Runs 2 and 3. This sector has the greatest capacity to increase availability for community use. To achieve this, it will require negotiation between Exeter City Council and each individual college or school. If a community use agreement (CAU) is not in place, then this should be the focus for the negotiation to increase access. The public leisure centres provide 20% of the available capacity in Run 1, and 19% in Runs 2 and 3. Availability can only be increased at the refurbished Wonford Sports Centre.

Age

Chart 2.4: Decade Built of Exeter Sports Halls by Site Type



- 2.29 The most recent sports hall to open is Exeter College in 2019. The next newest sports halls are Isca Academy and St Luke's Science and Sports College, which was built in 2006.
- 2.30 The oldest sports hall is The Maynard School which opened in 1964 and was refurbished in 2006.
- 2.31 Following modernisation of Wonford Sports Centre in 2026, all the sports halls built before 2005 will have been refurbished. University of Exeter Sports Park is scheduled to be modernised in 2028. Overall, there is a very good track record of modernisation.

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

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

2.33 These refurbishments increase the attractiveness of sports halls to users. There are also minor works, such as redecoration or replacing line markings, that do not alter the attractiveness of the halls.

Locations

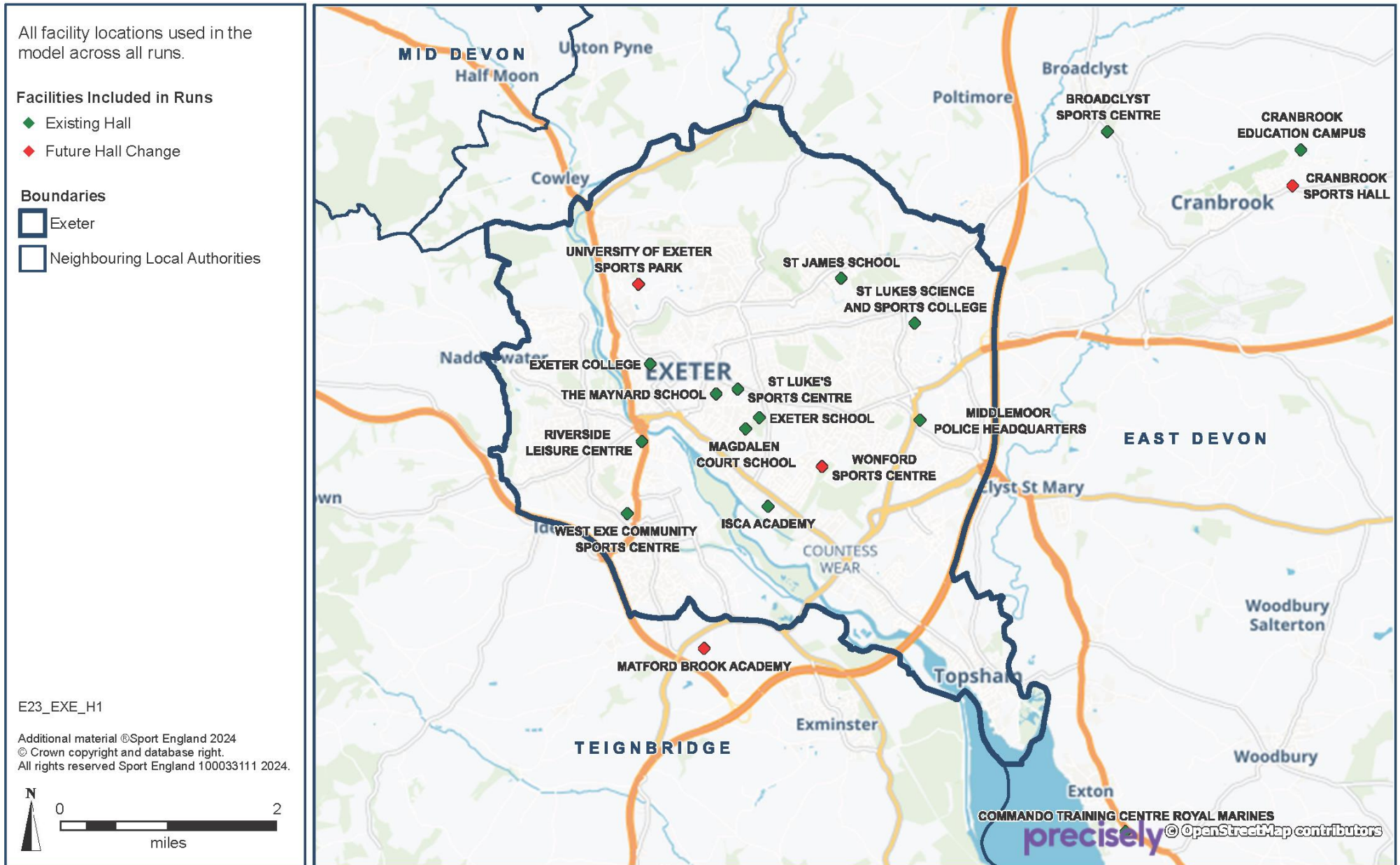
2.34 There is a very good geographical distribution of sports halls across Exeter (see Map 2.1).

2.35 Matford Brook Academy in Teignbridge, due to open in 2025, is the closest sports hall in a neighbouring local authority to Exeter in Runs 2 and 3.

2.36 There are currently three sports hall sites in East Devon close to Exeter. A fourth site, Cranbrook Sports Hall, is modelled as an option in Run 3.

2.37 The closest sports halls in Mid Devon are three sites in Crediton.

Map 2.1: Location of All Sports Halls Across the Runs



3 DEMAND FOR SPORTS HALLS

Demand for sports halls is less than the available supply in Exeter in all three runs.

Demand is highest north of Exeter city centre and lowest in the southeast of Exeter in both years.

The largest percentage increase in demand to 2034 is in East Devon, and the smallest is in Exeter.

Table 3.1: Demand for Sports Halls in Exeter by Run

Total Demand	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
Population	134,254	142,431	142,431
Visits demanded per week in peak period	11,692	12,138	12,138
Demand in courts with comfort factor included	39.7	41.2	41.2

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 and frequency of participation, for gender and age, are calculated from Sport England's Active Lives survey up to March 2020 and are set out in Appendix 3.

- 3.1 The geographical distribution of the population in the FPM for 2034 includes housing growth sites provided by Exeter City Council, which are shown on Map 3.1. The largest housing growth site is in the southwest of Exeter.
- 3.2 **Key finding 3** is that Exeter's population is projected to increase by 6% between 2023 and 2034. This produces a 4% increase in demand for sports halls, equating to 1.5 courts and a total demand for 41.2 courts.

Demand in the Study Area

Table 3.2: Demand for Sports Halls by Area and Run

Demand in Court Equivalents Considering a 'Comfort' Factor	Run 1	Runs 2 and 3	% Change
Area	2023	2034	2023–2034
Exeter	39.7	41.2	4%
East Devon	40.4	43.2	7%
Mid Devon	23.9	25.1	5%
Teignbridge	37.4	39.2	5%

- 3.3 Exeter has smallest increase in demand in the study area between 2023 and 2034. In the neighbouring local authority areas, the biggest increase in demand is in East Devon at 7%. Mid Devon and Teignbridge have an increase of 5%.

Geographical Distribution of Demand

2023

- 3.4 In 2023 demand is greatest north of Exeter city centre (see Map **3.2**) at 5.3 courts in two one-kilometre squares:
- Pennysylvania at 3.2 courts (yellow square)
 - St Sidwell's at 2.1 courts (green square)
- 3.5 There are no sports halls in this area.
- 3.6 There is a cluster of demand at:
- Riverside Leisure Centre and to the west of it, which totals 6.6 courts in five light blue squares
 - St Lukes Sports Centre and to the west of it (one square), and also to the east of it (two squares), which totals 5.2 courts
- 3.7 There is demand of 1.1 courts at the location of St James School.
- 3.8 Demand outside these areas is one court per square kilometre or less (dark blue and purple squares). Demand is lowest in the southeast of Exeter, and there are no sports halls in this area.
- 3.9 There is no demand in the north of Exeter on the border with East Devon, and also in a small area in the northwest on the border with Mid Devon and Teignbridge.

2034

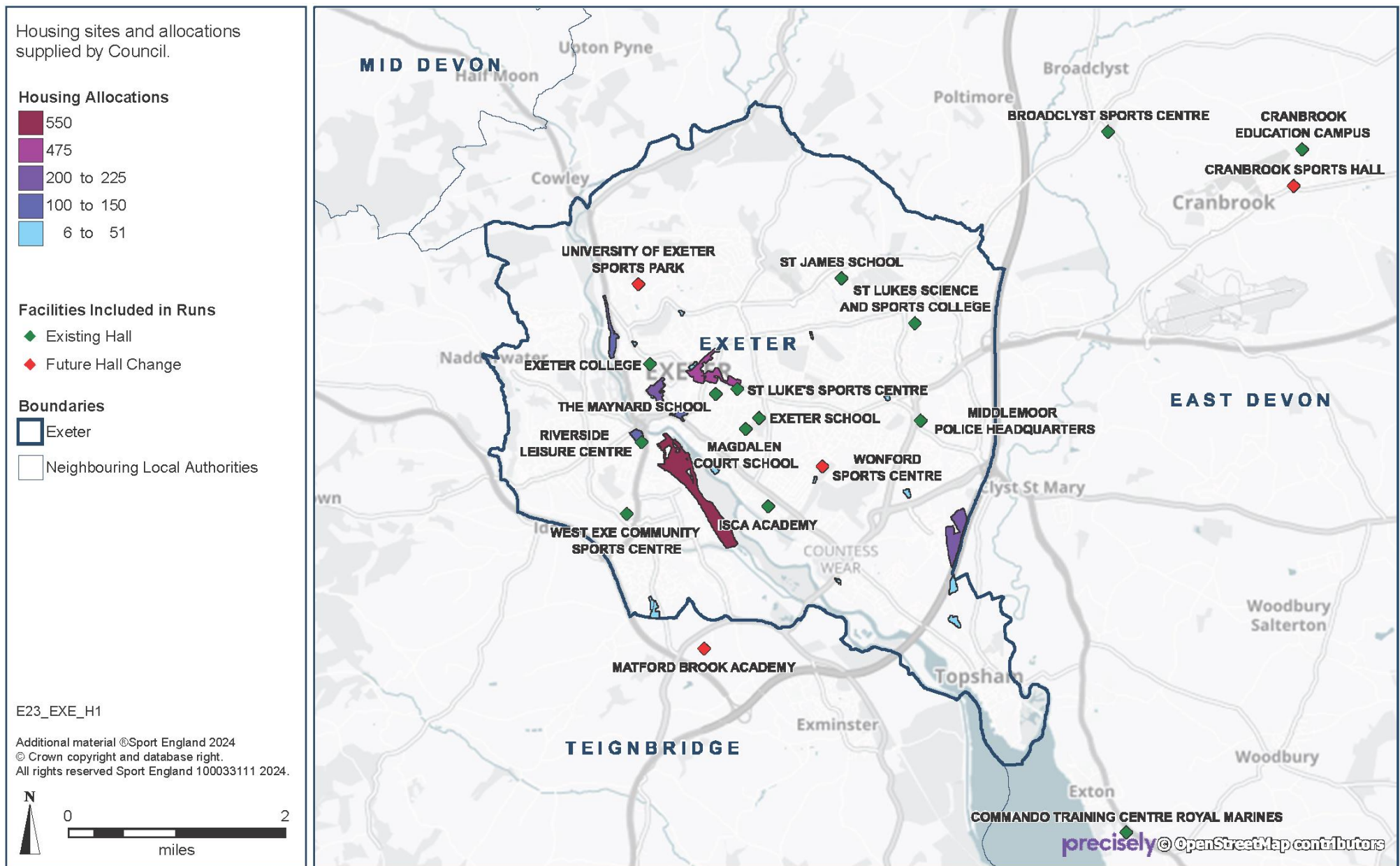
- 3.10 In 2034 demand across Exeter increases by just 1.5 courts. It remains highest in the same areas with very little change (see Map **3.3**).
- 3.11 Demand in the area of:
- North of Exeter city centre increases to 5.5 courts from 5.3 courts
 - Riverside Leisure Centre and to the west of it decreases to 6.5 courts from 6.6 courts
 - St Lukes Sports Centre and to the west of it (one square), and also to the east of it (two squares), to 5.4 courts from 5.2 courts
 - St James School is unchanged at 1.1 courts
- 3.12 Demand southwest of St Magdalen School increases to 0.7 of a court from 0.5 of a court. The largest housing growth area is included in this area.

- 3.13 Demand outside of these areas remains at one court per square kilometre or less, and increases by 0.1 or 0.2 of a court in a few squares.
- 3.14 Demand remains lowest in the southeast of Exeter, and increases by 0.1 of a court in one square.
- 3.15 There remains no demand to the north of Exeter on the border with East Devon, and to the northwest on the border with Mid Devon and Teignbridge.

Deprivation

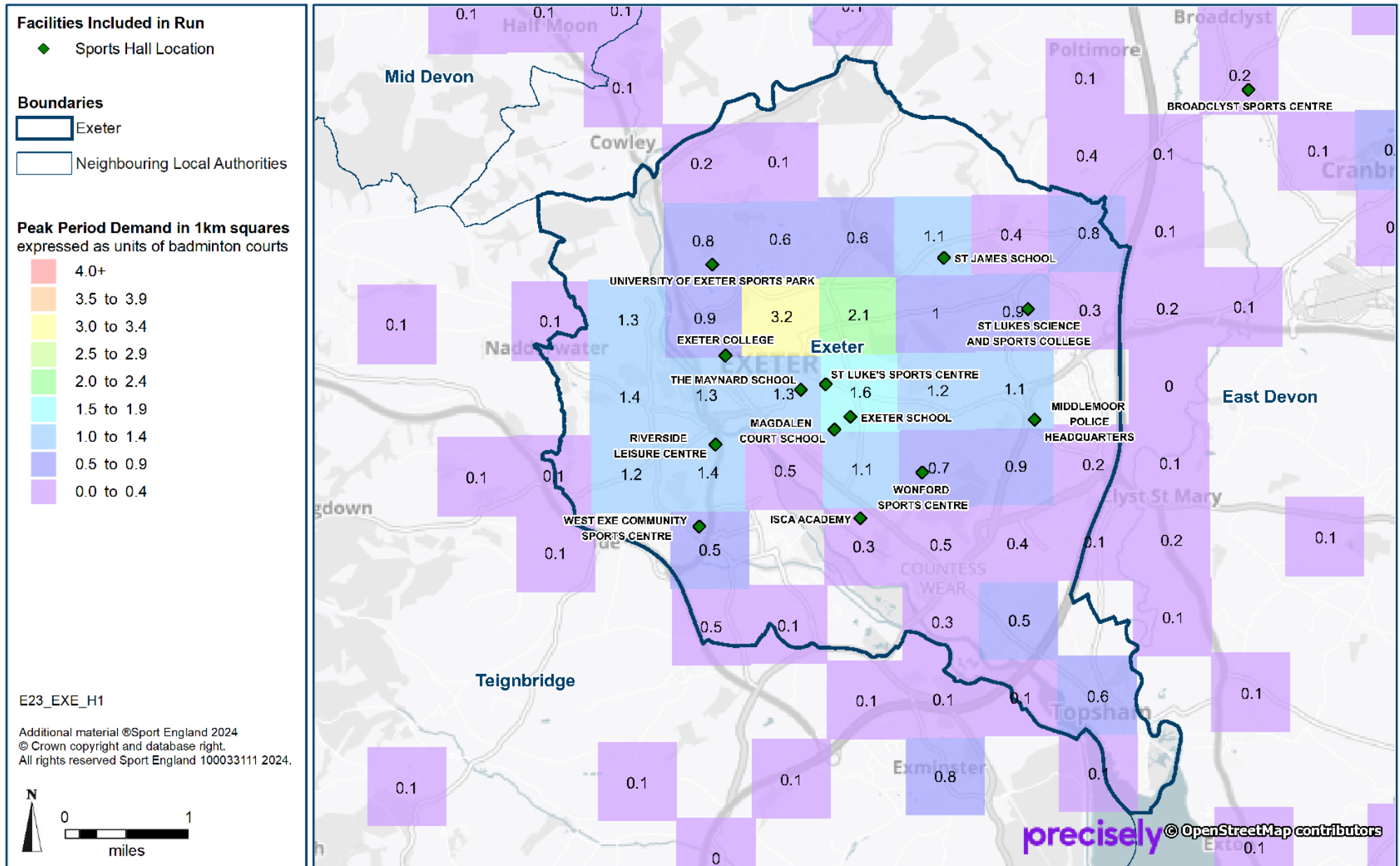
- 3.16 None of Exeter's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally.
- 3.17 The areas of greatest deprivation in Exeter are (dark red areas in Map 3.4):
- Exeter city centre
 - Northwest of Northbrook swimming pool
 - Barton Hill in the east of the Council area
 - Wonford
- 3.18 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 Exeter to 2034 (Runs 2 and 3)



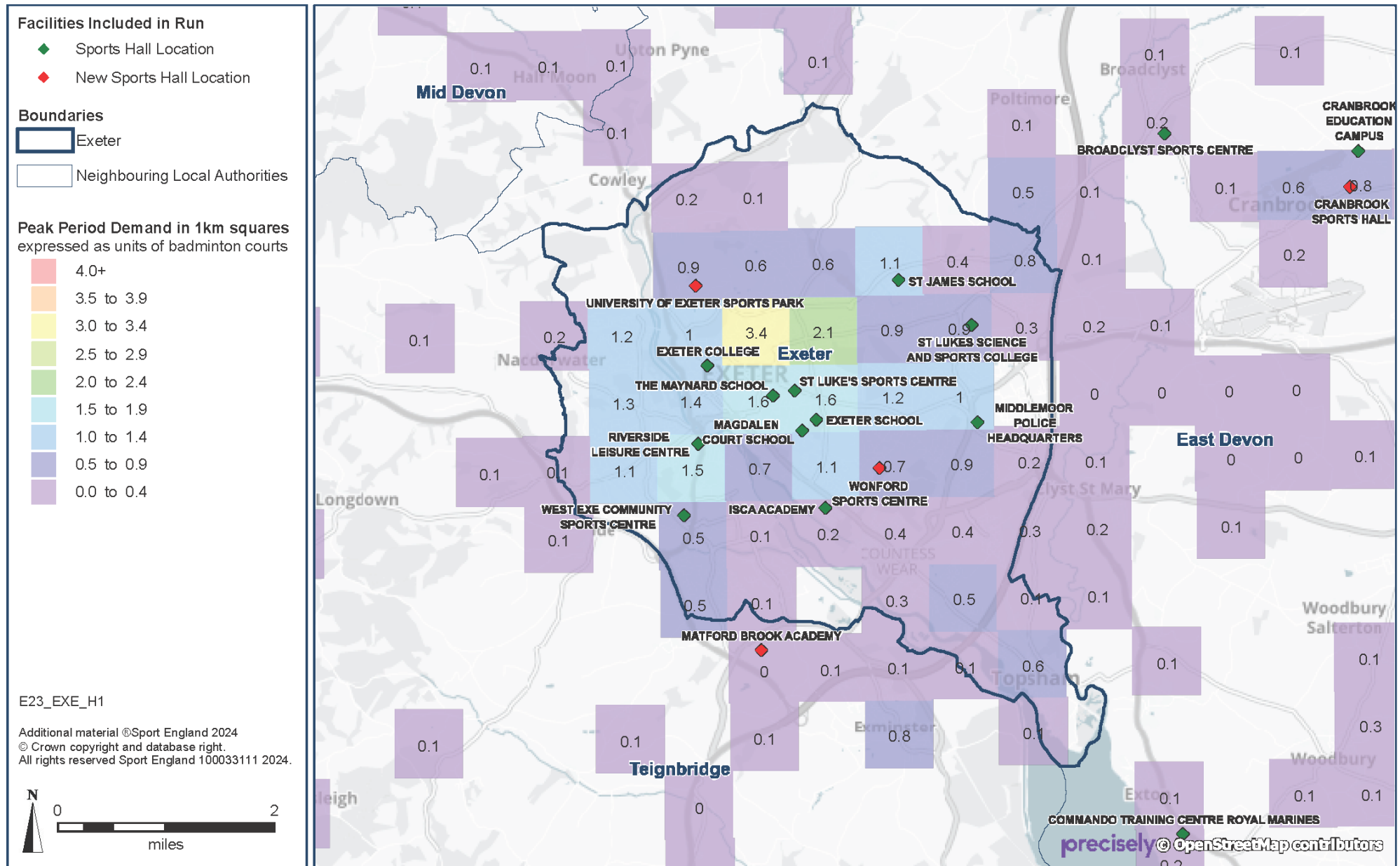
Map 3.2: Demand for Sports Halls in 2023 (Run 1)

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

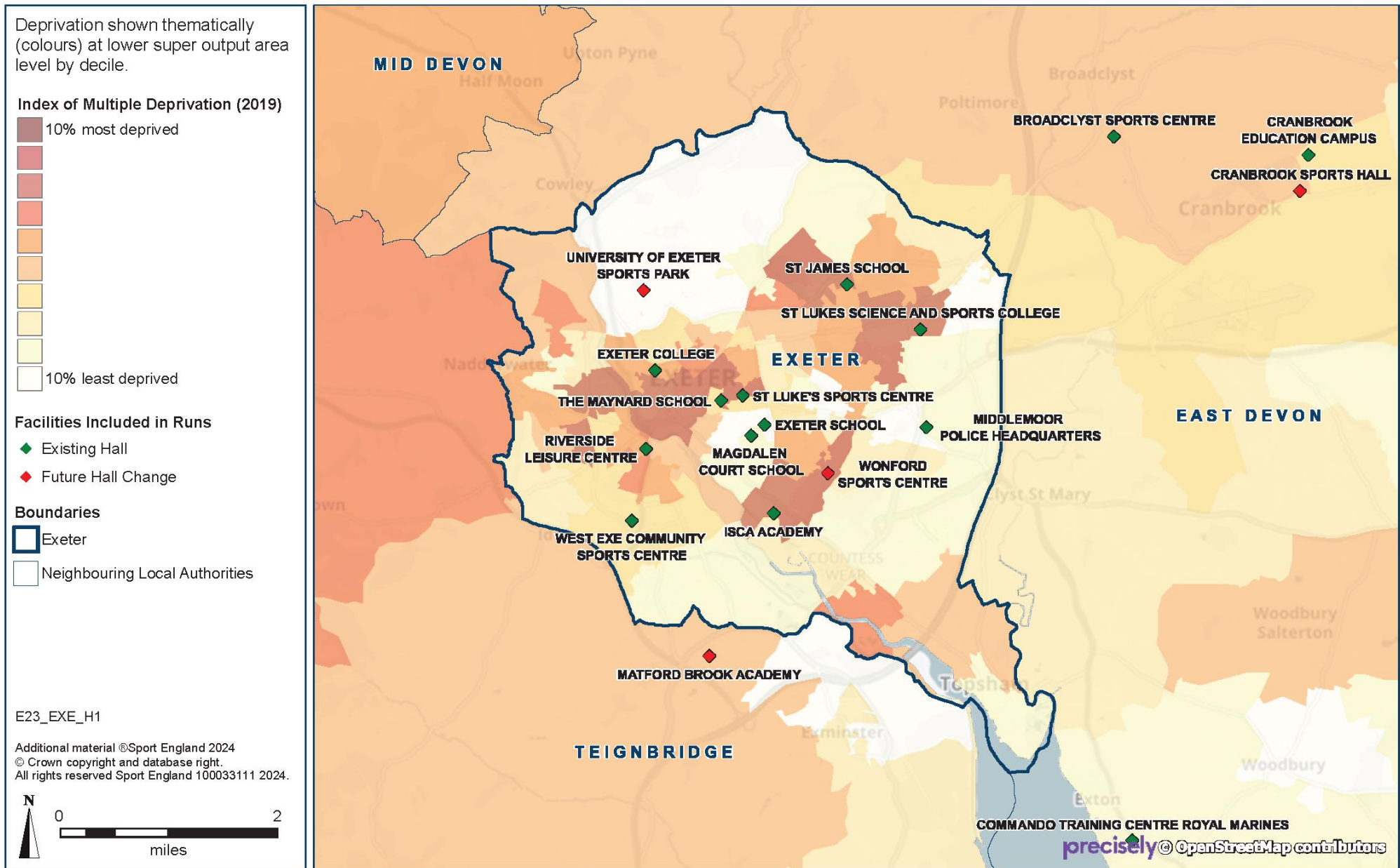


Map 3.3: Demand for Sports Halls in 2034 (Runs 2 and 3)

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



Map 3.4: Deprivation in 2019 (Runs 1 to 3)



4 ACCESSIBILITY

Three quarters of Exeter's population is within a 20-minute walk of a sports hall.

All the sports halls are within a five-minute walk of a bus stop.

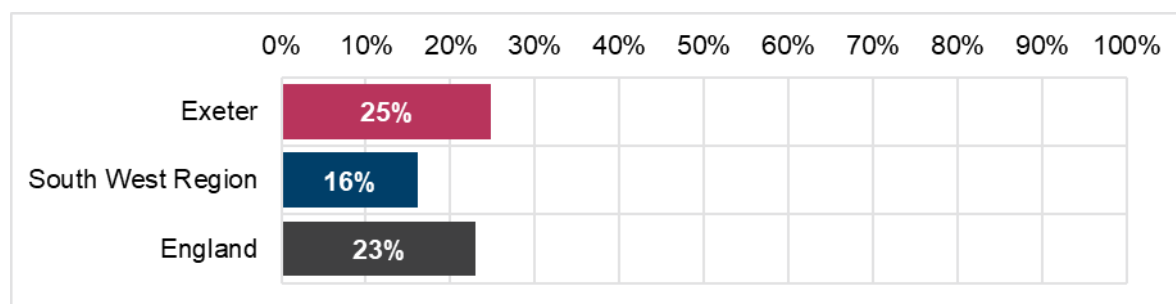
All residents have access to between at least ten and 14 sports hall sites within a 20-minute drive.

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

Accessibility	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
% of population within a 20-minute walk of a sports hall	76%	75%	75%
% of demand satisfied when travelled:			
on foot	20%	20%	20%
by public transport or bicycle	11%	11%	11%
by motor vehicle	69%	69%	69%

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 hall.

Chart 4.1: Proportion of Population Without Access to a Car



- 4.1 In Exeter, 25% of the population do not have access to a car. This is higher than the national average of 23% and the regional average of 16%.

Walking Access

- 4.2 In Run 1, 76% of Exeter residents are within a 20-minute walk of a sports hall. In Runs 2 and 3 this decreases to 75% due to the impact of housing growth areas on the geographical distribution of the residents.
- 4.3 The housing development at Old Rydon Lane in the southeast of Exeter is the largest housing growth area and is more than a 20-minute walk from a sports hall.

- 4.4 In Run 1 residents in Topsham, the south of Exeter and the northwest of Exeter are not within a 20-minute walk of a sports hall (see Map 4.1). Residents in the centre of Exeter can walk to the most sports hall sites in 20 minutes, at four and five sites (pink and purple areas).
- 4.5 In Run 2 the addition of Matford Brook Academy in Teignbridge does not change the walking coverage in Exeter because the population is more than a 20-minute from the sports hall. There is also no change to the walking coverage in Exeter in Run 3 because the modelled option of Cranbrook Sports Hall in East Devon is too far away (see Map 4.2).
- 4.6 Not all residents in the areas on the maps will walk to a sports hall and some will travel further. In all runs, 20% of all journeys to sports halls are estimated to be on foot.

Public Transport Access

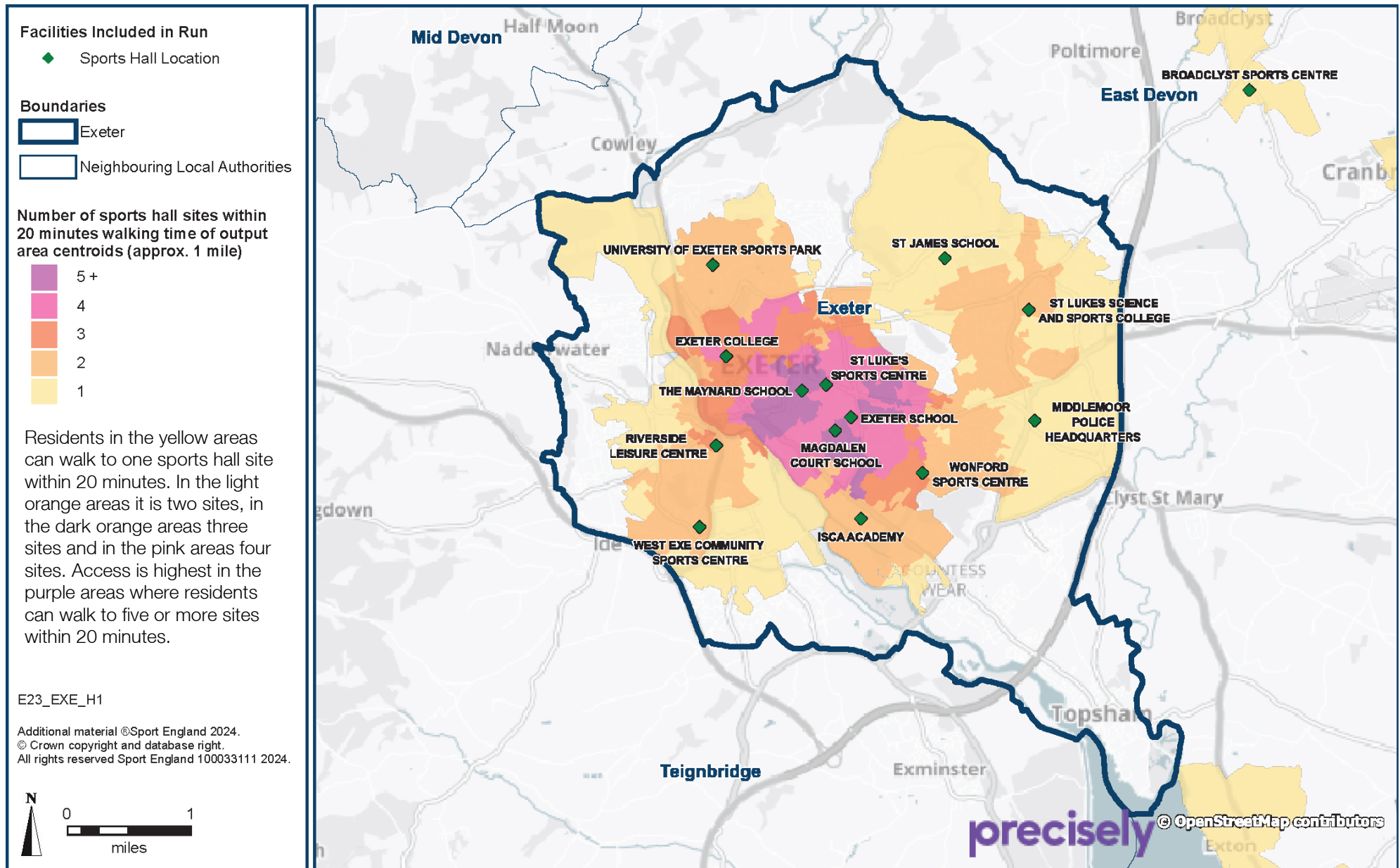
- 4.7 All the sports hall sites are within a five-minute walk of an existing bus stop (pink areas in Map 4.3). Travel to all sports halls by bus should be possible.
- 4.8 Exeter College and Riverside Leisure Centre are within a five-minute walk of a railway station. The Maynard School and Middlemoor Police Headquarters are within a 15-minute walk of a railway station (purple areas).
- 4.9 It should be noted that, while most Exeter residents can access a 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. In all runs, 11% of all journeys to sports halls are estimated to be by public transport or bicycle.

Driving Access

- 4.10 In Run 1 residents in Exeter can drive to between ten and 19 sites within a 20-minute drive (light blue and dark blue areas in Map 4.4). Residents in the southwest of Exeter and in the northern part of the University's Streatham campus have the least access, with between ten and 14 sports hall sites within a 20-minute drive (light blue areas).
- 4.11 In Run 2 the addition of Matford Brook Academy in Teignbridge means that more people can drive to between 15 and 19 sports hall sites within 20 minutes (dark blue areas). However, access is still poorer in the southwest of Exeter.
- 4.12 In Run 3 the modelled option of Cranbrook Sports Hall in East Devon increases access in the west of Exeter to more than 20 sports halls within a 20-minute drive (purple area in Map 4.5). There is no change to driving access in the rest of the Council area from Run 2.
- 4.13 In all runs, 69% of all journeys to sports halls are estimated to be by motor vehicle.

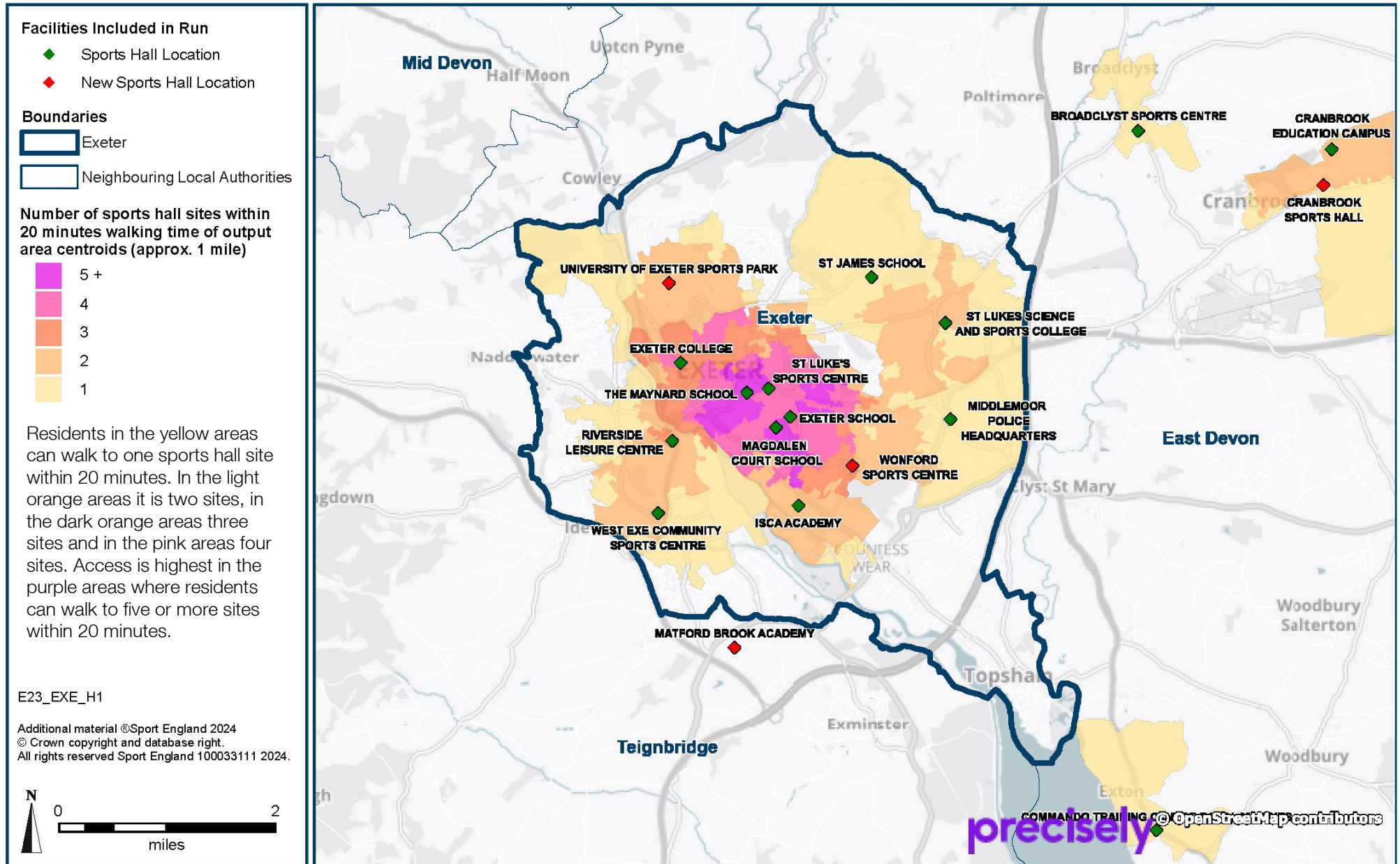
Map 4.1: Walking Access to Sports Halls in Run 1 (2023)

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



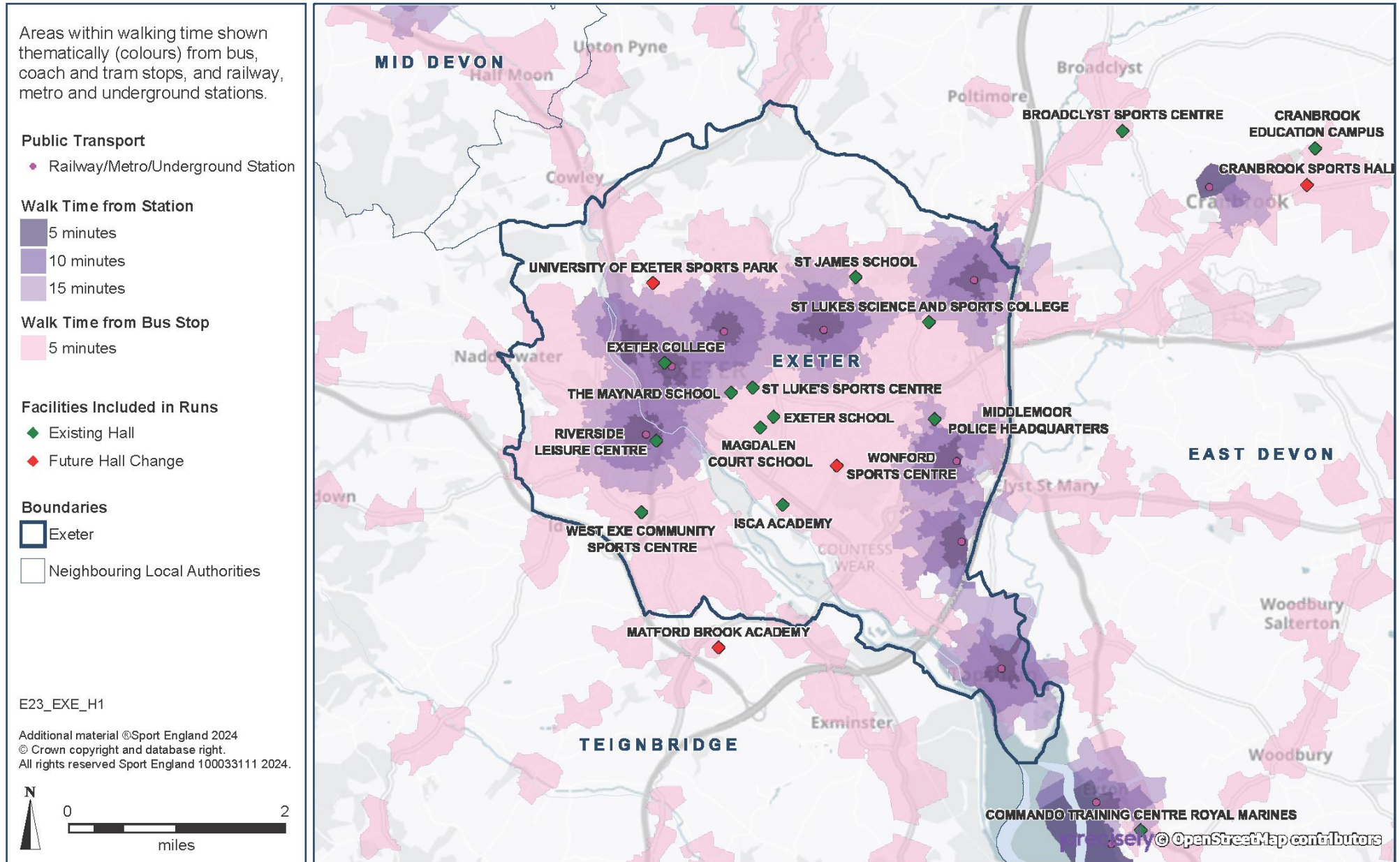
Map 4.2: Walking Access to Sports Halls in Runs 2 and 3 (2034)

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



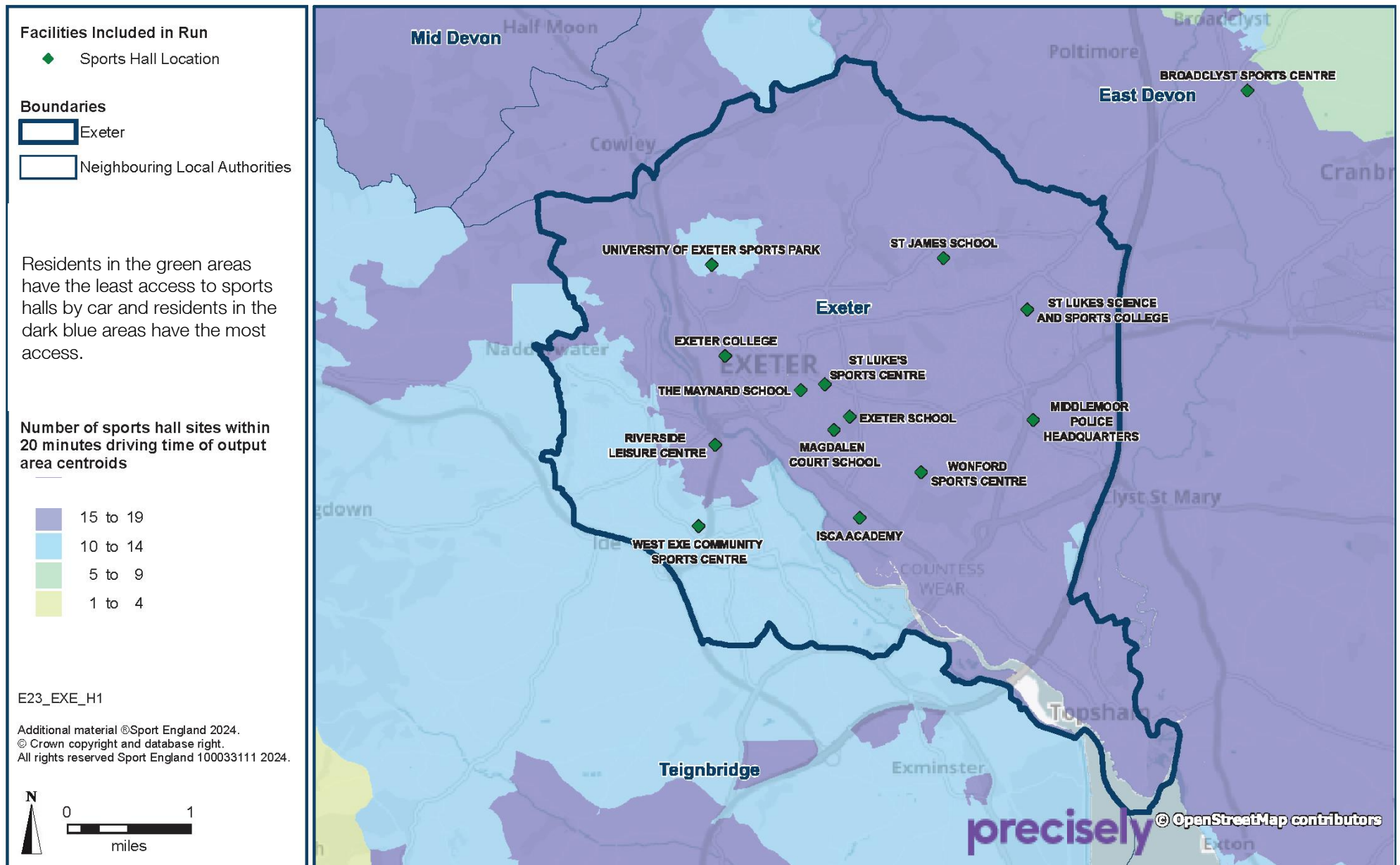
Map 4.3: Walking Access to Existing Public Transport in Runs 1 to 3 (2023 and 2034)

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



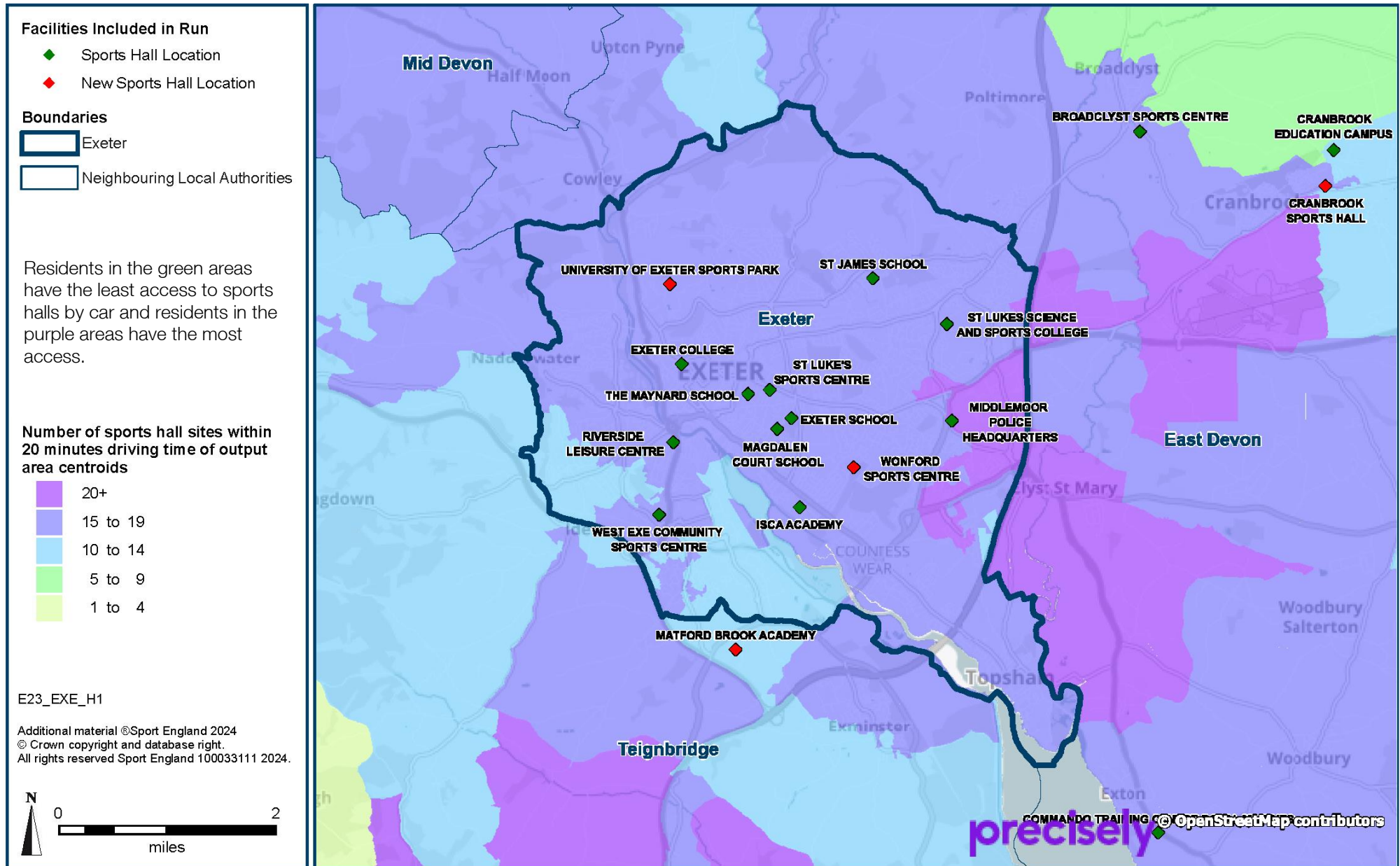
Map 4.4: Driving Access to Sports Halls in Run 1 (2023)

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



Map 4.5: Driving Access to Sports Halls in Run 3 (2034)

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



5 SATISFIED DEMAND FOR SPORTS HALLS

A very large proportion of Exeter's demand is met, with more visits satisfied in 2034 than in 2023 due to the increase in demand.

Nearly all met demand is retained within Exeter.

Exported demand is very low, and in 2023 most exported demand is met in East Devon. In 2034 the inclusion of the new Matford Brook Academy sports hall means that most exported demand is met in Teignbridge.

Table 5.1: Satisfied Demand for Sports Halls in by Run

Satisfied Demand	Run 1	Run 2	Run 3
	2023	2034	2034
Number of visits met per week in peak period	11,181	11,608	11,614
% of total demand satisfied	96%	96%	96%
Number of visits retained per week in peak period	10,976	10,996	10,894
Demand retained as a % of satisfied demand	98%	95%	94%
Number of visits exported per week in peak period	205	612	720
Demand exported as a % of satisfied demand	2%	5%	6%

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

- 5.1 **Key finding 4** is that in all three runs 96% of Exeter's demand is met. The number of visits met in the weekly peak period increases from 11,181 in Run 1 to 11,608 visits in Run 2, and 11,614 visits in Run 3.

Table 5.2: Percentage of Satisfied Demand for Sports Halls Area and Run

Proportion of Demand Met	Run 1	Run 2	Run 3
Area	2023	2034	2034
Exeter	96%	96%	96%
East Devon	91%	91%	91%
Mid Devon	87%	86%	87%
Teignbridge	92%	92%	92%
South West Region	92%	92%	92%
England	91%	91%	91%

- 5.2 Exeter has the largest proportion of satisfied demand in the study area, and is greater than the regional average of 92% and the national average of 91%.

- 5.3 Mid Devon has the smallest proportion of satisfied demand in the study area, at 87% in Runs 1 and 3 and 86% in Run 2. Details of the sports halls in the neighbouring local authorities are listed in Appendix 2.

Retained Demand

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

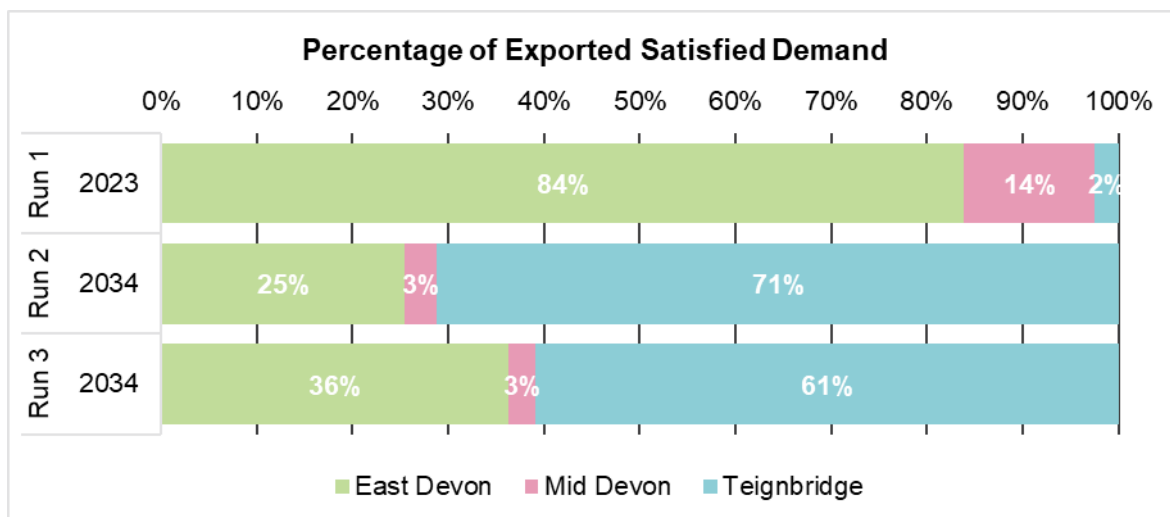
- 5.4 **Key finding 5** is that almost all of Exeter's met demand is retained within the Council area. In Run 1 it is 98%, and in Run 2 the proportion decreases to 95% but the number of visits increases from 10,976 to 10,996 due to the increase in demand. In Run 3, met demand is 94% at 10,894 visits.

Exported Demand

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

- 5.5 The number of exported visits in the weekly peak period is lowest in Run 1 at 205, and greatest in Run 3 at 720 visits.

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

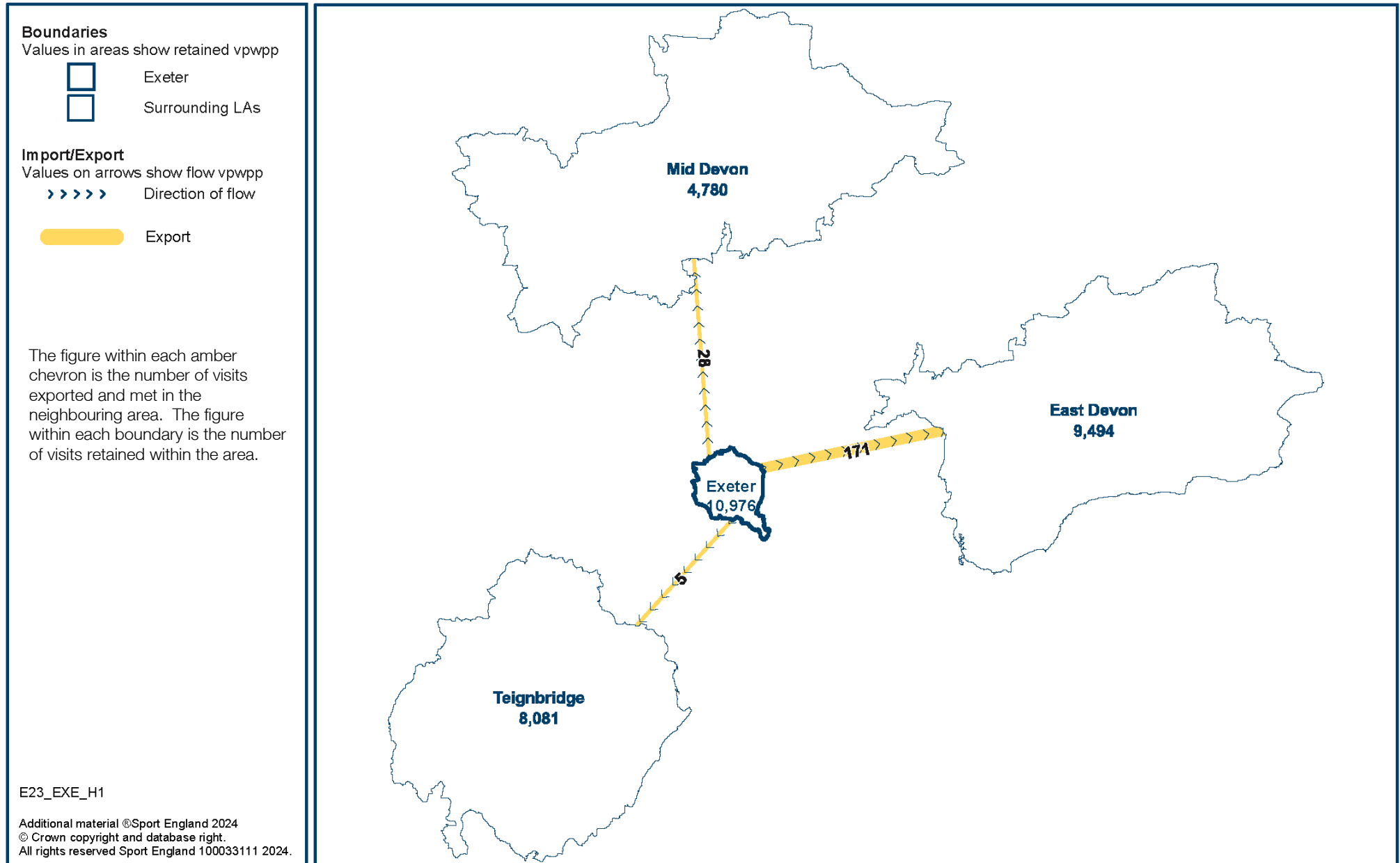


- 5.6 In Run 1 the largest amount of exported demand in the weekly peak period is to East Devon at 171 visits (see Map 5.1), which accounts for 84% of all exported demand.
- 5.7 In Run 2 the inclusion of the new Matford Brook Academy sports hall increases exported demand to Teignbridge from five visits in Run 1 to 436 visits (see Map 5.2), which accounts for 71% of all exported demand.

- 5.8 In Run 3 the largest amount of exported demand still goes to Teignbridge, at 438 visits (see Map **5.3**), and accounts for 61% of all exported demand.
- 5.9 Exported demand to East Devon decreases from Run 1 to 156 visits in Run 2. The inclusion of Cranbrook Sports Hall in Run 3 increases exported demand to East Devon to 261 visits.

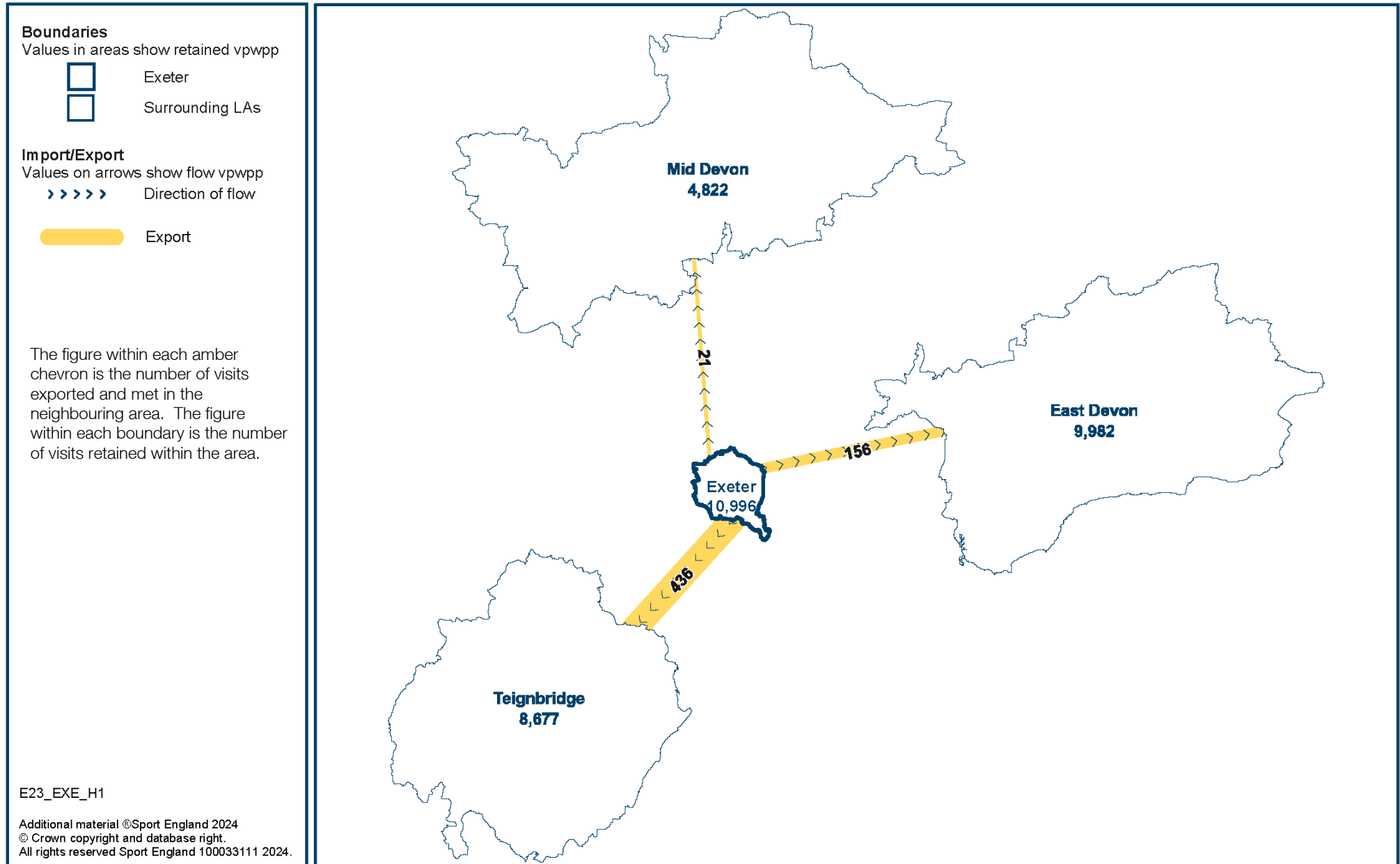
Map 5.1: Export of Exeter Satisfied Demand for Sports Halls in Run 1 (2023)

FPM exported demand between Exeter and surrounding areas shown thematically (size of lines) as visits per week in the peak period (vpwpp).



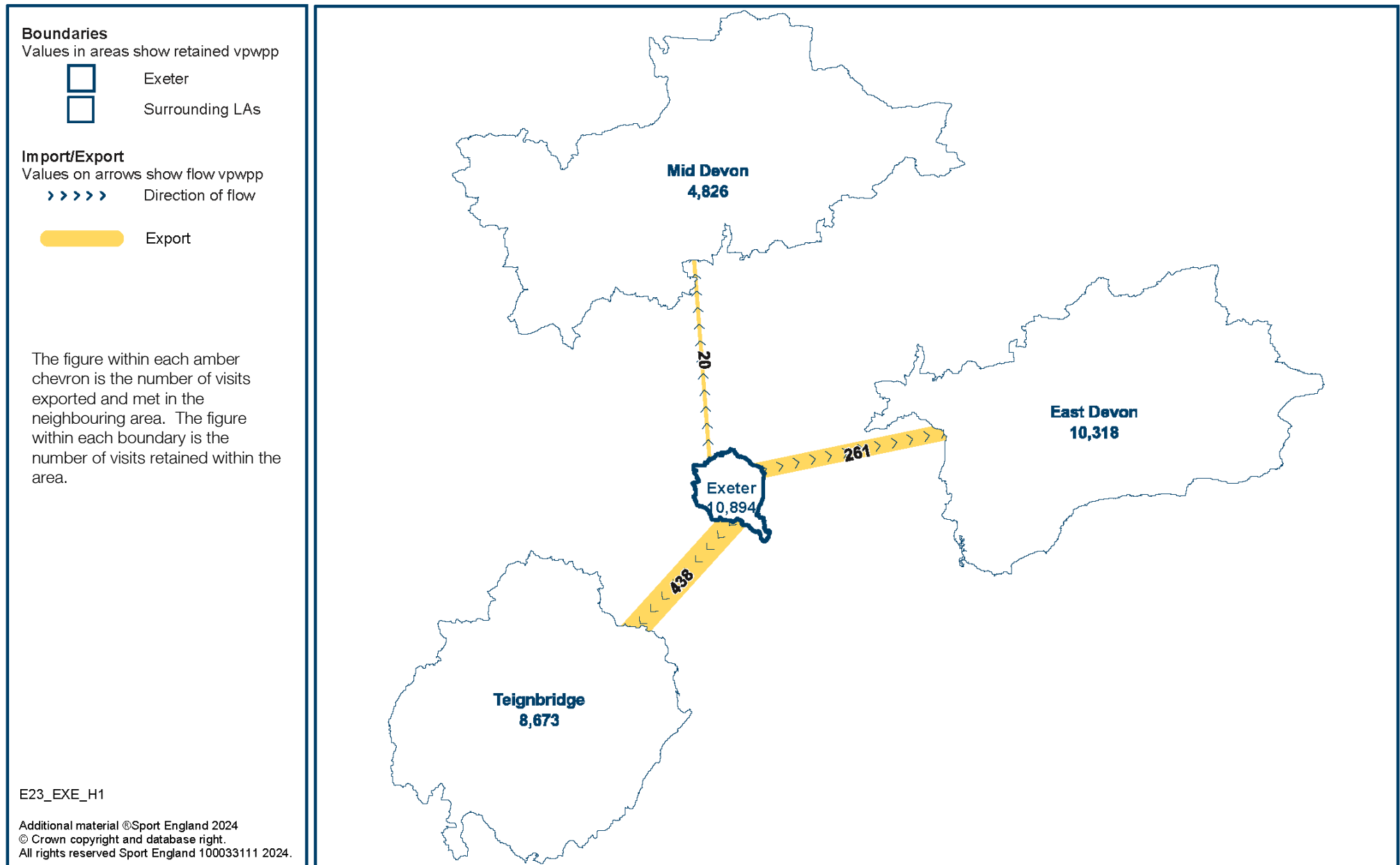
Map 5.2: Export of Exeter Satisfied Demand for Sports Halls in Run 2 (2034)

FPM exported demand between Exeter and surrounding areas shown thematically (size of lines) as visits per week in the peak period (vpwpp).



Map 5.3: Export of Exeter Satisfied Demand for Sports Halls in Run 3 (2034)

FPM exported demand Exeter and surrounding areas shown thematically (size of lines) as visits per week in the peak period (vpwpp).



6 UNMET DEMAND FOR SPORTS HALLS

Unmet demand in Exeter is very low in 2023 and increases very slightly to 2034. It totals below two courts in both years.

Unmet demand due to lack of sports hall capacity is just 0.1 of a court in both years.

There is insufficient unmet demand to consider the provision of a new sports hall to improve accessibility for residents.

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

Unmet Demand	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
Number of visits unmet per week in peak period	511	529	524
Unmet demand as a % of total demand	4%	4%	4%
Equivalent in courts with comfort factor	1.7	1.8	1.8
Court equivalents of unmet demand due to:			
Facility too far away, of which:	1.6	1.7	1.7
% without access to a car	97%	97%	97%
% with access to a car	3%	3%	3%
Lack of facility capacity, of which:	0.1	0.1	0.1
% without access to a car	94%	93%	93%
% with access to a car	6%	7%	7%

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

1. There is too much demand for any particular sports hall within its travel time area and there is a lack of capacity; or
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 **Key finding 6** is that unmet demand is 4% in all three runs, the equivalent of between 1.7 courts and 1.8 courts. Nearly all unmet demand is too far from a facility. Unmet demand from lack of sports hall capacity is 0.1 of a court in all three runs.
- 6.2 Residents without access to a car account for 97% of the unmet demand that is too far from a facility in all runs.
- 6.3 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 and not everyone will want, or is able, to drive the full distance.

Location of Unmet Demand

- 6.4 In Run 1 unmet demand is distributed in very low values across Exeter, at 0.1 of a court at ten locations (purple squares in Map 6.1). Seven are in the northern half of Exeter and three in the southern half.
- 6.5 In Run 2 the addition of Matford Brook Academy in Teignbridge reduces unmet demand in Exeter by 0.1 of a court between Riverside Leisure Centre and West Exe Community Sports Centre. Unmet demand at The Maynard School is 0.1 of a court (see Map 6.2).
- 6.6 In Run 3 the addition of Cranbrook Sports Hall in East Devon makes no impact on the distribution of unmet demand in Exeter (see Map 6.3).

Meeting Unmet Demand

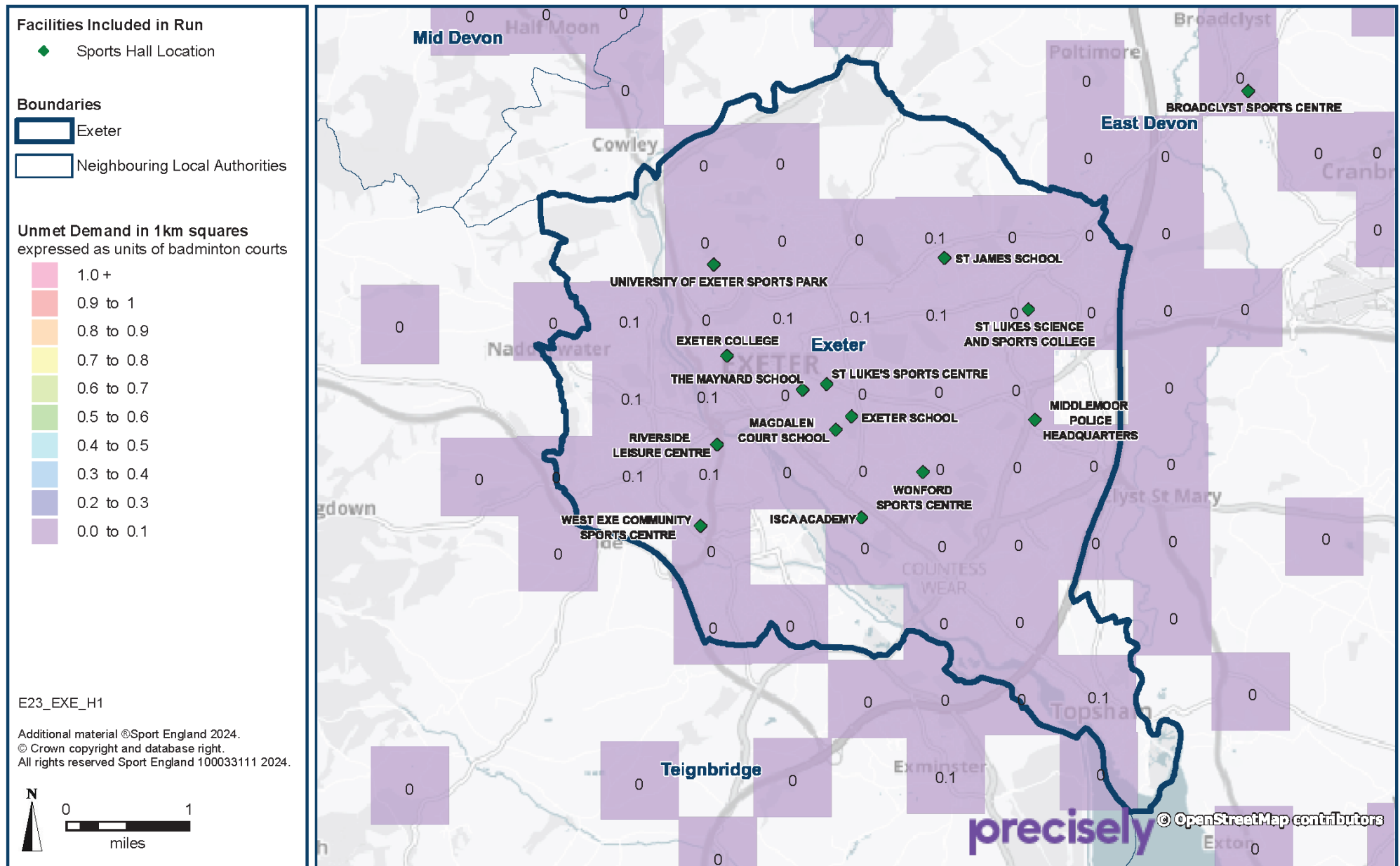
Definition of reachable unmet demand – Analysis of the spread of unmet demand shows the level of unmet demand that would be met by a potential new facility in any given location. This ‘reachable unmet demand’ is calculated for each one-kilometre grid square and figures are shown in the map.

- 6.7 **Key finding 6** is that in Run 3 the location where the most unmet demand can be met is at Middlemoor Police Headquarters in the west of Exeter, at 0.9 courts (dark blue square in Map 6.4). There is insufficient unmet demand to consider the provision of a new sports hall to improve accessibility for residents.
- 6.8 The modelling includes the former four-court sports hall at this site with 14 hours of community use. This has been replaced with a new sports hall of the same scale, and opened in 2023. It is understood there is no community use of the new sports hall. The Police Headquarters would not confirm whether there is community use.

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

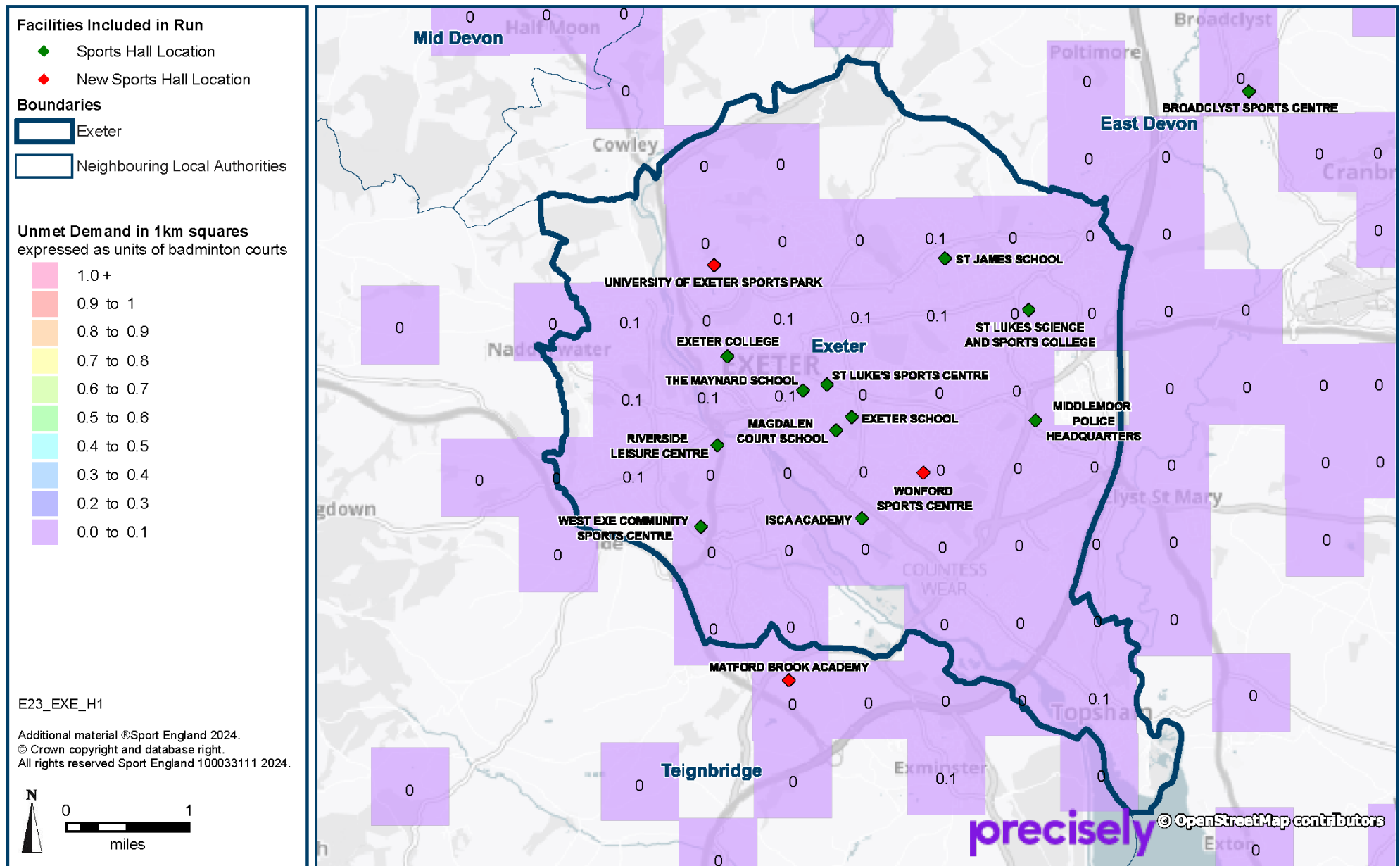
Map 6.1: Unmet Demand for Sports Halls in Run 1 (2023)

FPM unmet demand aggregated at 1km square grid level expressed in units of badminton courts and shown thematically (colours).



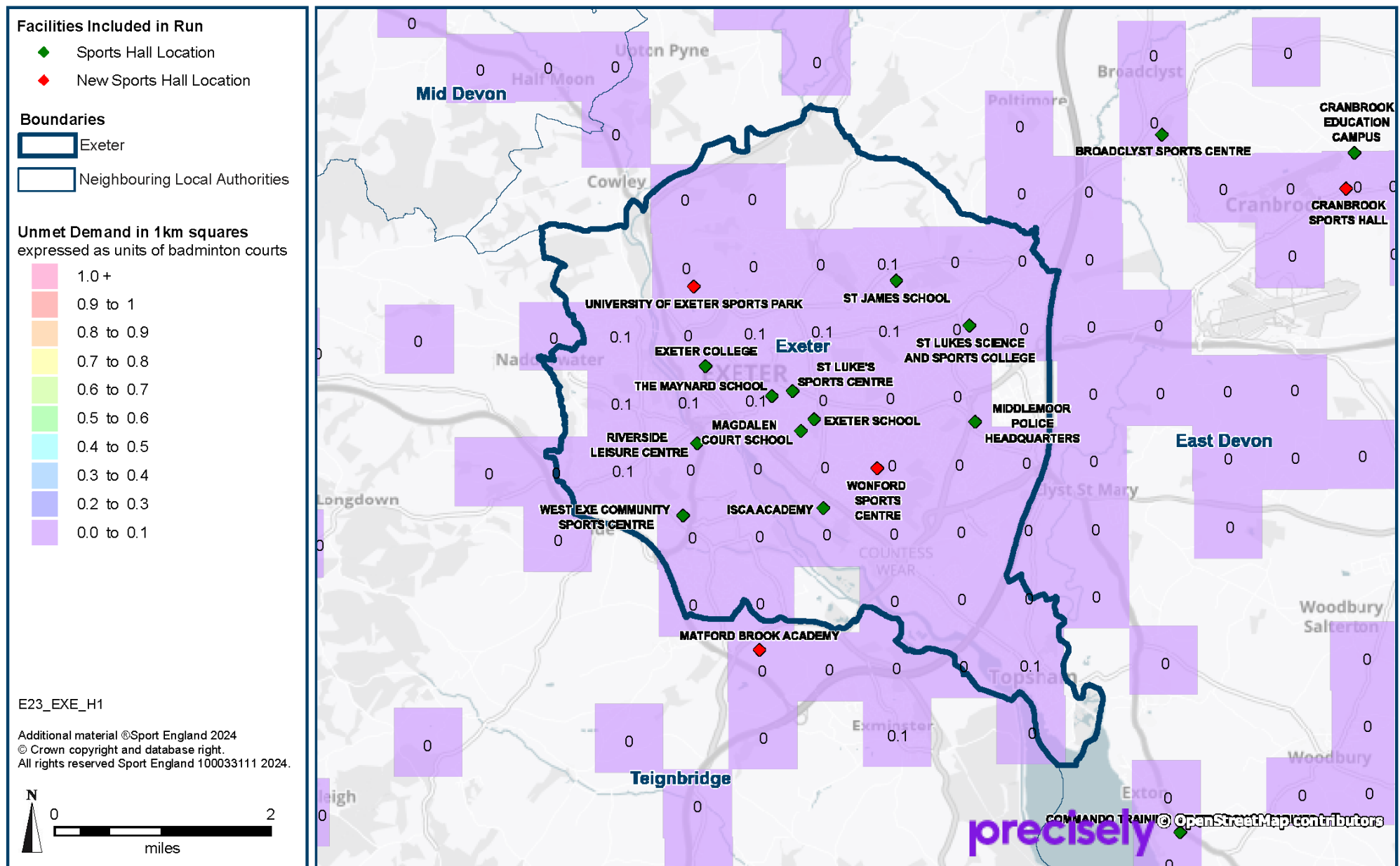
Map 6.2: Unmet Demand for Sports Halls in Run 2 (2034)

FPM unmet demand aggregated at 1km square grid level expressed in units of badminton courts and shown thematically (colours).



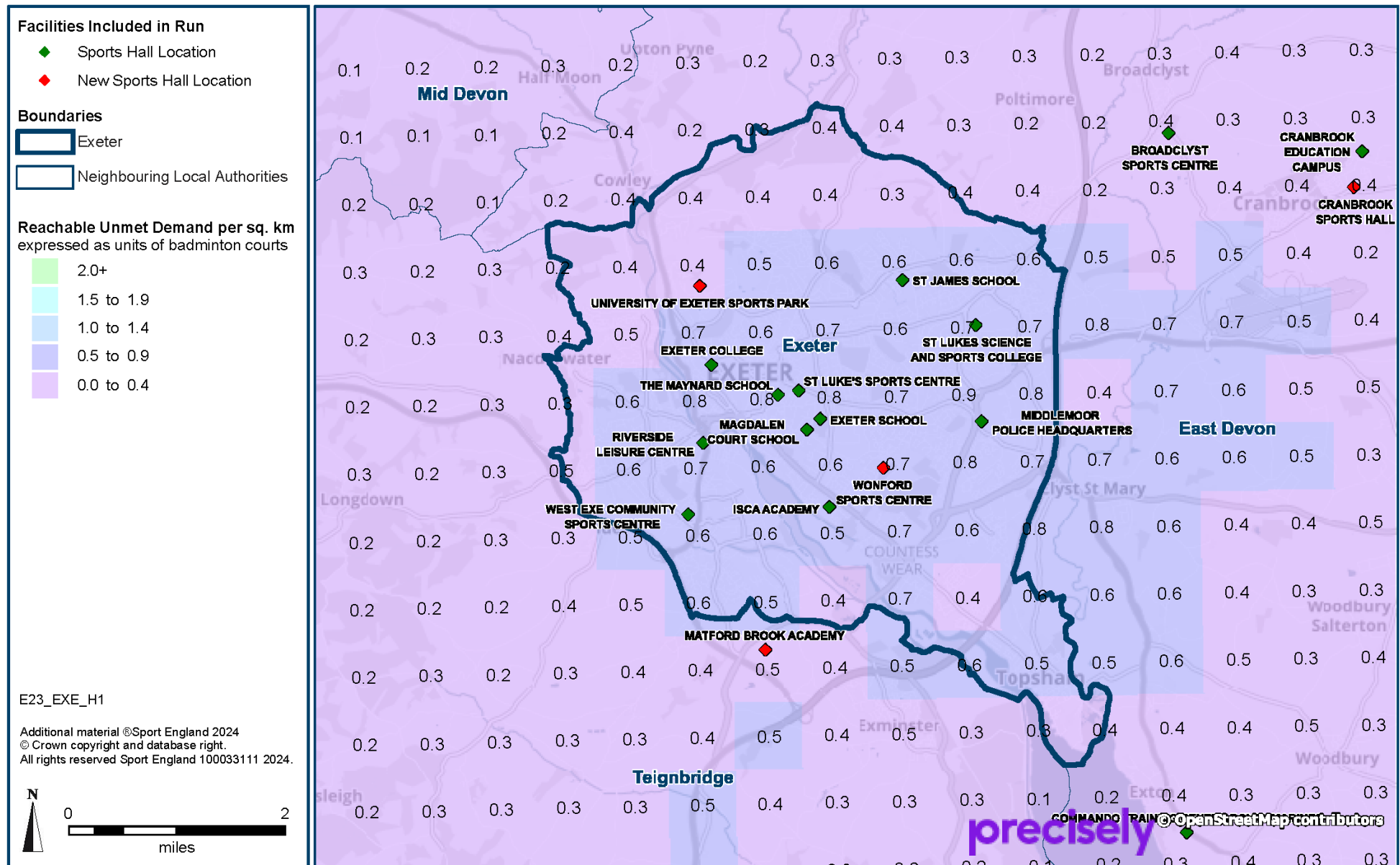
Map 6.3: Unmet Demand for Sports Halls in Run 3 (2034)

FPM unmet demand aggregated at 1km square grid level expressed in units of badminton courts and shown thematically (colours).



Map 6.4: Reachable Unmet Demand for Sports Halls in Run 3 (2034)

FPM reachable unmet demand aggregated at 1km square grid, shown thematically (colours) and expressed in units of badminton courts.



7 USED CAPACITY OF FACILITIES

There is sufficient sports halls capacity in Exeter to comfortably meet demand at peak times. However, five sites are uncomfortably full in both 2023 and 2034.

There is very limited scope to increase capacity where the centres are most full.

Imported demand accounts for 18% of the used capacity of Exeter's sports hall supply in Runs 1 and 2, but decreases to 17% in Run 3 when Cranbrook Sports Hall in East Devon is included.

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

Used Capacity	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
Number of visits used of capacity per week in peak period	13,405	13,457	13,074
% of overall capacity of halls used	71%	72%	70%

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

- 7.1 **Key finding 7** is that the overall estimated used capacity of sports halls in the weekly peak period is between 70% in Run 3 and 72% in Run 2. However, five sports halls are uncomfortably full, at over 80%, in all runs.

Table 7.2: Used Capacity of Exeter Sports Halls by Run

Used Capacity	Run 1		Run 2		Run 3		Operation	Peak Hours	Year Built	Year Refurb
Individual Sites	Proportion	Visits	Proportion	Visits	Proportion	Visits				
Exeter College ¹	83%	1,089	94%	1,233	91%	1,194	Edu. (in-house)	41	2019	
Exeter School	39%	574	41%	603	38%	559	Edu. (in-house)	29	1970	2005
Isca Academy	100%	1,088	100%	1,088	100%	1,088	Edu. (3rd party)	34	2006	
Magdalen Court School	52%	424	50%	408	47%	384	Edu. (in-house)	34	1989	2005
Middlemoor Police Headquarters *	73%	327	55%	246	49%	220	Other	14	1970	2015
Riverside Leisure Centre	100%	2,208	98%	2,164	96%	2,120	Public	46	1986	2018
St James School	94%	1,023	84%	914	77%	838	Edu. (3rd party)	34	1993	2006
St Luke's Sports Centre	71%	820	60%	693	58%	669	Edu. (3rd party)	27	1984	2011
St Luke's Science and Sports College	100%	1,088	100%	1,088	100%	1,088	Edu. (3rd party)	34	2006	
The Maynard School	44%	956	46%	1,000	44%	956	Edu. (in-house)	37	1964	2006
University of Exeter Sports Park	55%	645	71%	833	69%	809	Edu. (in-house)	46	1968	2013/2028
West Exe Community Sports Centre	44%	717	38%	619	37%	603	Edu. (3rd party)	34	1972	2001
Wonford Sports Centre	100%	1,472	100%	1,312	100%	1,312	Public	46/41	1988	2026

¹ Modelled as four courts but has six courts

² The sports hall was replaced with a new hall opened in 2023 that has the same dimensions

7.2 The estimated used capacity of the sports halls 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 (more detail is provided in the subsequent paragraphs):

- Type of site operator (public/educational/other)
- Age of the hall and its 'attractiveness' weighting
- Scale and capacity
- Location of demand and competition from other sites
- Imported demand

Public Leisure Centres

7.3 Wonford Leisure Centre is 100% utilised in all three runs. Riverside Leisure Centre is 100% utilised in Run 1, 98% in Run 2 and 96% in Run 3. These utilisation levels are because of the 'draw effect' of both sites, 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
- The operators actively promote hall sports and physical activity participation, with a programme of use that reflects the activities customers wish to participate in and at times when they wish to participate

7.4 Riverside Leisure Centre is available for the maximum 46 hours in the weekly peak period in all three runs. There is no scope to increase availability and reduce capacity used at peak times.

7.5 At the refurbished Wonford Leisure Centre availability can be increased by 5 hours at peak times, increasing capacity by a further 160 visits.

Educational Sites

7.6 Access to sports halls for community use will be determined by the policy of each educational provider:

7.7 Two educational sports halls are 100% utilised at peak times in all three runs; Isca Academy and St Luke's Science and Sports College Centre.

7.8 At both sites there is scope to increase availability by up to 7 hours at peak times (to 41 hours) and increase capacity by a further 224 visits.

7.9 Two other educational sports halls are uncomfortably full.

- 7.10 Exeter College is 83% utilised in Run 1, 94% in Run 2 and 91% utilised in Run 3. It is available for 41 hours in the weekly peak period in all three runs. There is no scope to increase availability for community use as it is already providing the maximum possible hours for an educational site in term time. It is the most recent sports hall to open in 2019.
- 7.11 St James School is 94% utilised in Run 1, 84% in Run 2 and 77% in Run 3, which is just below the halls full comfort level of 80%. Availability can be increased by seven hours in the weekly peak period (to 41 hours) to increase its capacity by a further 224 visits. The centre opened in 1993 and was modernised in 2006.

Other Site

- 7.12 The other site is Middlemoor Police Headquarters sports hall. It is used for the training of new and existing police officers. The extent of any community use is unknown. It is a four-court 34.5m x 20m sports hall that opened in 2023 and which replaced a sports hall that opened in 1970 and was modernised in 2015.
- 7.13 The replacement sports hall was identified following the assessment. The modelling included the former sports hall with the same dimensions at the same site, and with 14 hours of community use at peak times.

Attractiveness

- 7.14 To assess their comparative attractiveness to customers, all sports halls in the model are weighted to reflect their age and whether they have been modernised, and how actively managed they are (educational sites managed in-house have a lower weighting).
- 7.15 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.
- 7.16 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.

Capacity

- 7.17 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 proportion of capacity used can accommodate very different levels of demand.

Location

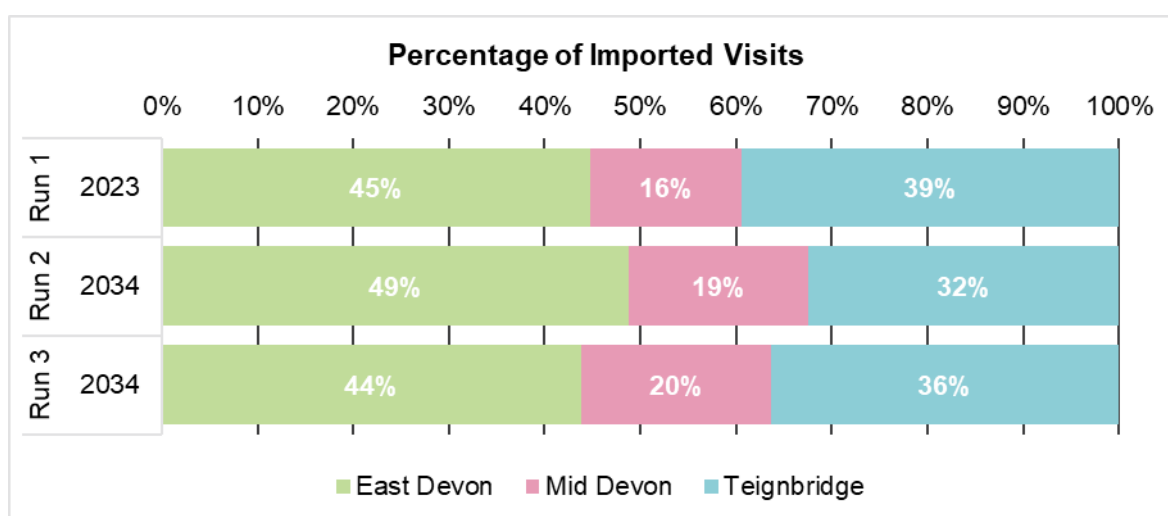
- 7.18 Where sports halls are close together, the demand for these sites is shared between the venues, which contributes to the level of used capacity at each. Conversely, where a sports hall is remotely located, it benefits from no competition for the local demand.

Imported Demand

Imported Demand	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
Number of visits imported per week in peak period	2,428	2,461	2,180
As a % of used capacity	18%	18%	17%
Difference between visits imported and exported	2,224	1,848	1,460

- 7.19 If residents in neighbouring local authority areas participate at a site in Exeter, their usage becomes part of the used capacity of Exeter's sports halls.
- 7.20 Imported demand accounts for 18% of the used capacity of Exeter's sports hall supply in Runs 1 and 2, but decreases to 17% in Run 3 when Cranbrook Sports Hall in East Devon is included.
- 7.21 The number of visits imported in the weekly peak period increases from 2,428 visits in Run 1 to 2,461 visits in Run 2, but is lowest at 2,180 visits in Run 3.

Chart 7.1: Percentage of Imported Visits by Origin and Run



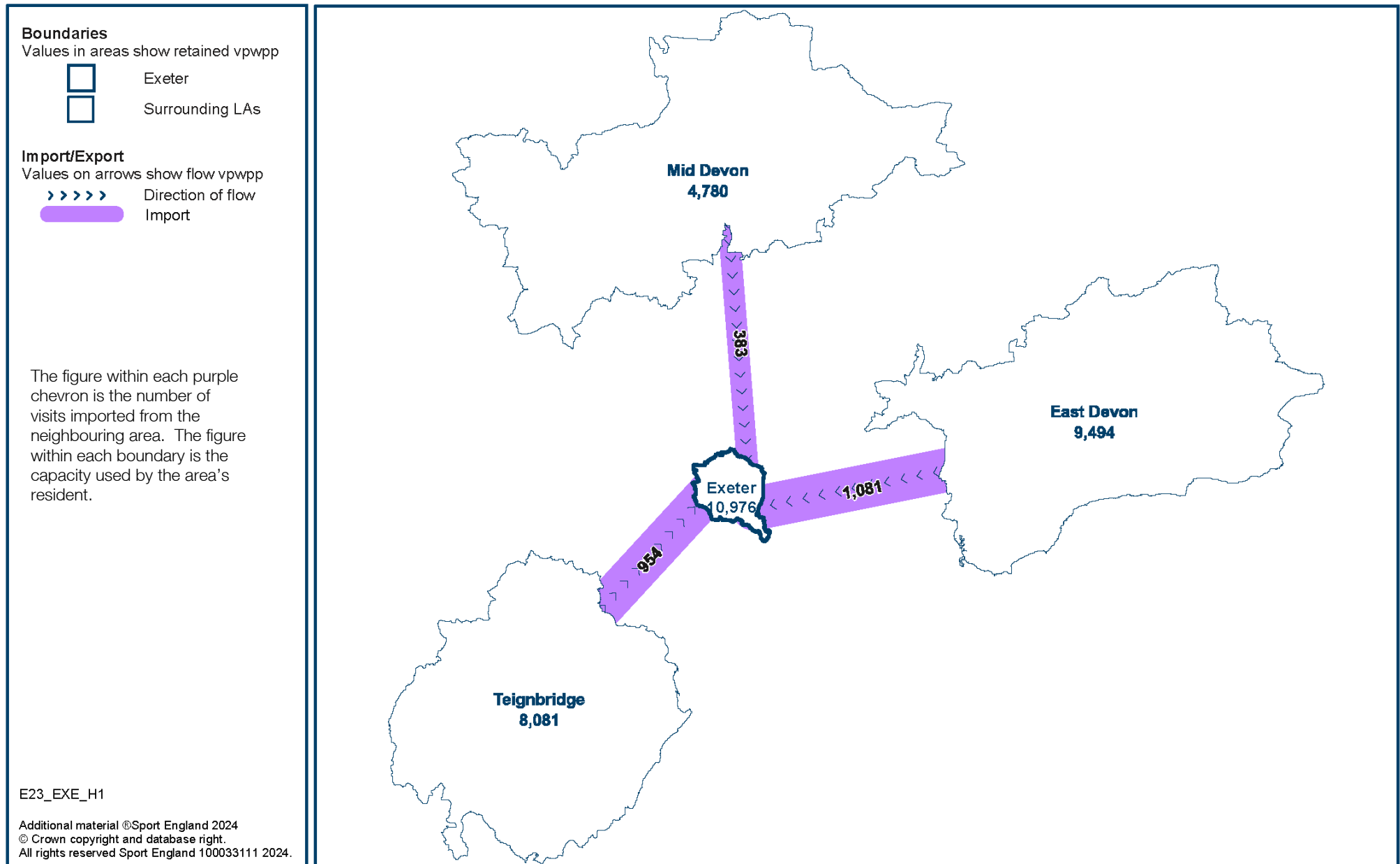
- 7.22 In all three runs the largest amount of imported demand in the weekly peak period is from East Devon:
- Run 1 – 1,081 visits (Map 7.1), accounting for 45% of all imported demand
 - Run 2 – 1,195 visits (Map 7.2), accounting for 49% of all imported demand
 - Run 3 – 950 visits (Map 7.3), accounting for 44% of all imported demand

Import/Export Balance

- 7.23 Exeter is a net importer of demand in all runs.

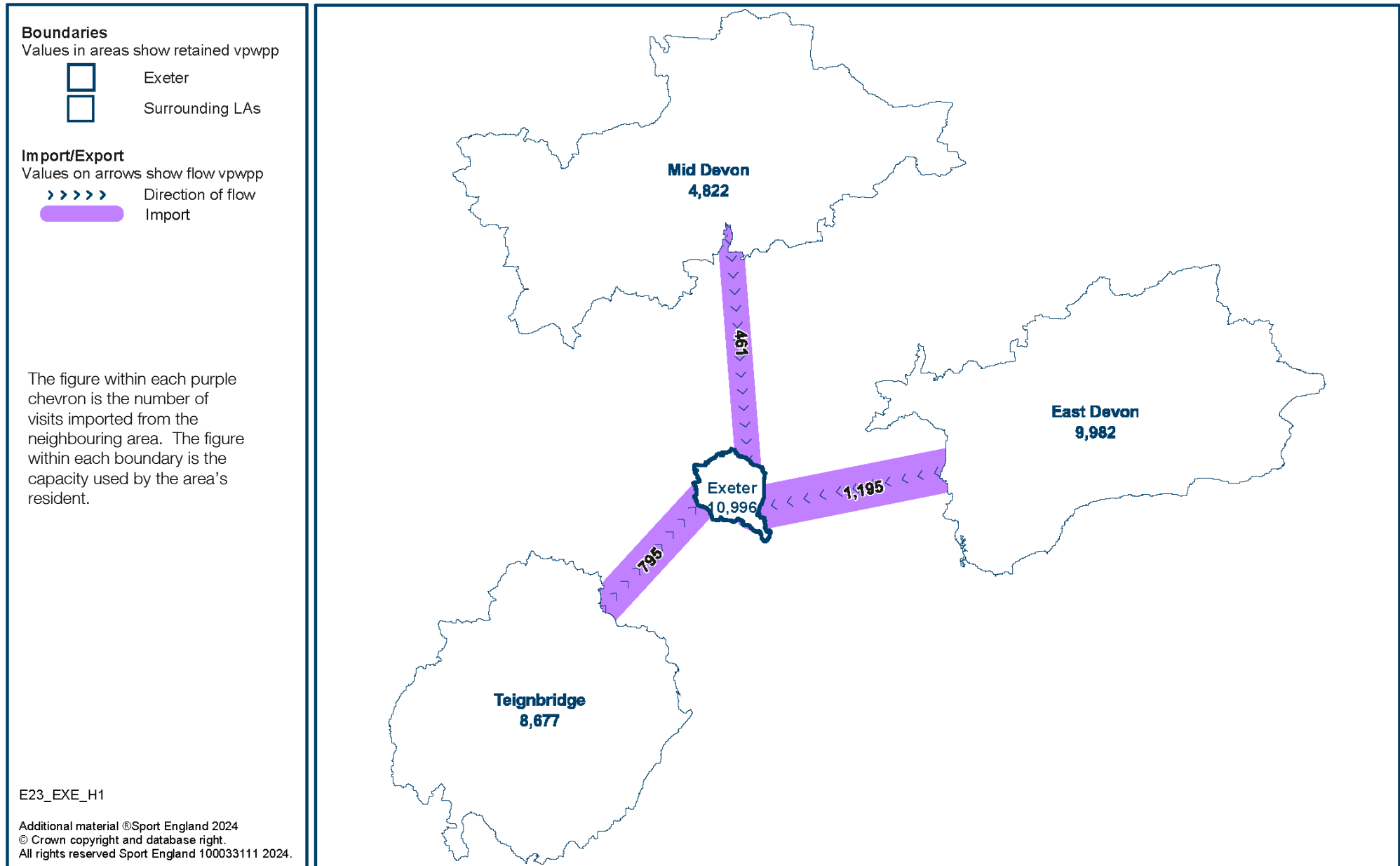
Map 7.1: Imported Demand for Sports Halls in Exeter Run 1 (2023)

FPM imported demand between Exeter and surrounding areas shown thematically (size of lines) as visits per week in the peak period (vpwpp).



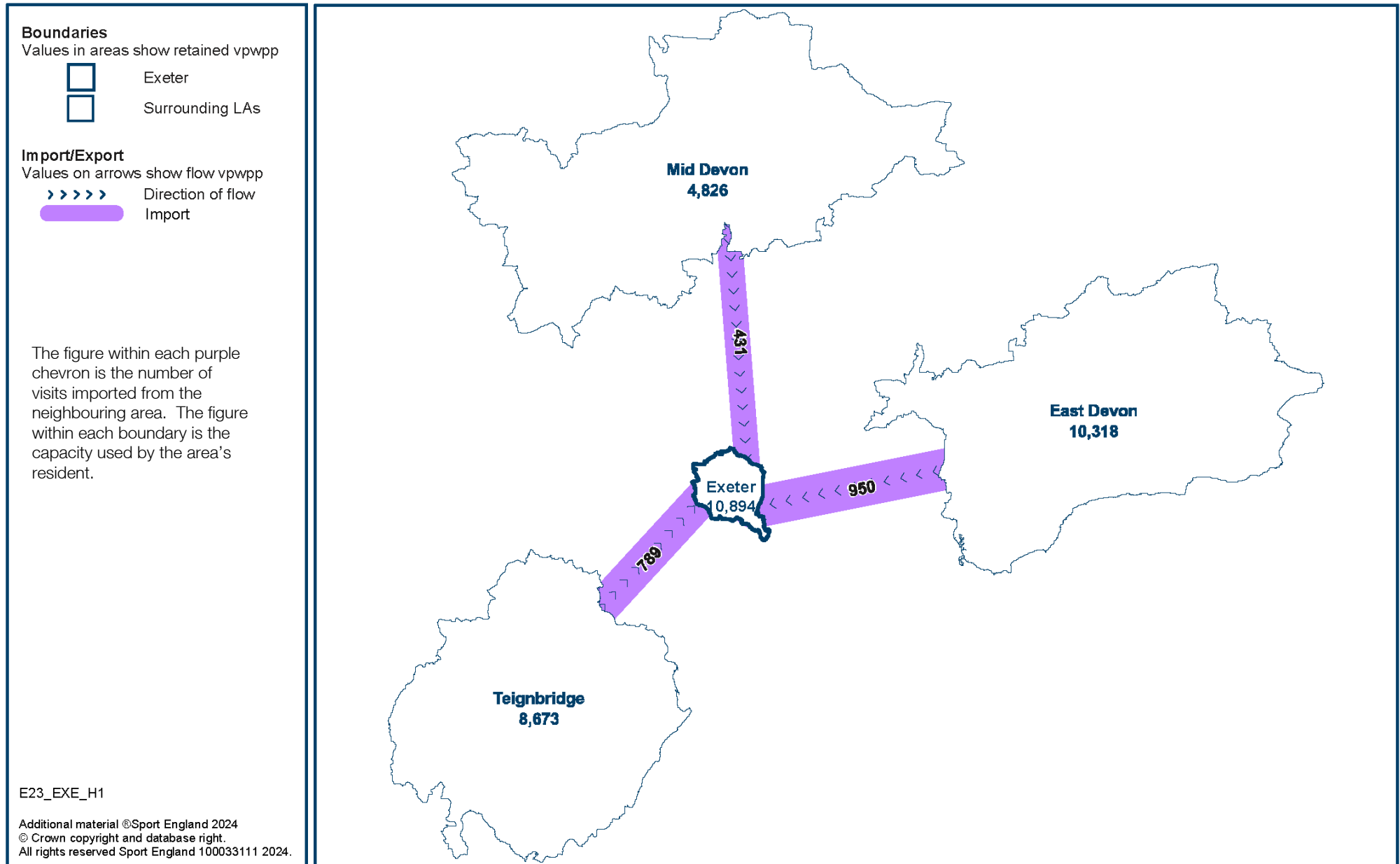
Map 7.2: Imported Demand for Sports Halls in Exeter Run 2 (2034)

FPM imported demand between Exeter and surrounding areas shown thematically (size of lines) as visits per week in the peak period (vpwpp).



Map 7.3: Imported Demand for Sports Halls in Exeter Run 3 (2034)

FPM imported demand between Exeter and surrounding areas shown thematically (size of lines) as visits per week in the peak period (vpwpp).



8 LOCAL SHARE OF FACILITIES

Local share in Exeter is poor in 2023. It worsens in 2034 due to the increase in demand and the ageing of the facilities between the two years.

Exeter has the greatest provision of sports halls per head of population across the study area in all runs, at 4.9 courts per 10,000 population in Run 1 and 4.6 courts in Runs 2 and 3.

Teignbridge has the poorest provision, at 2.9 courts per 10,000 population in all three runs.

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

Local Share	Run 1	Run 2	Run 3
Exeter	2023	2034	2034
Local share of sports halls relative to demand in local area: <1 = poorer, >1 = better	0.70	0.58	0.60

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

- 8.1 Local share shows how access and share of sports halls differs across the local authority area, as follows:
 - A value of 1 means that there is 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 to sports halls in areas where residents have the lowest share of sports halls.
- 8.3 In Run 1 local share is 0.70, meaning that there is insufficient suitable provision that Exeter’s demand in 2023 can access.
- 8.4 In Run 2 local share is poorer, at 0.58. Exeter’s demand has increased in 2034 and, even though there is a new sports hall added to the supply nearby in Teignbridge in Run 2, the sports halls included in Run 1 have aged.
- 8.5 In Run 3 local share is slightly better, at 0.60. Demand is unchanged from Run 2 and a sports hall is added to the supply nearby in East Devon in Run 3.

Geographical Distribution of Local Share

Run 1

- 8.6 In Run 1 there is little variation in the local share values across Exeter. It is best in the Pinhoe area with a value of 0.8 in four green squares (see Map 8.1), and in the Tiverton area with the same value in three squares.
- 8.7 Demand is quite low in both areas. There are two educational sports halls in the Pinhoe area (St James School and St Luke's Science and Sports College), both of which have extensive hours for community use. In the Tiverton area West Exe Community Sports Centre also has extensive hours for community use.
- 8.8 Local share is 0.7 (yellow squares) in most of the remainder of Exeter, and 0.6 in three areas around Wonford, St Loyes and Digby and Sowton.

Run 2

- 8.9 In Run 2 local share is best in a wider area of Tiverton but has decreased to 0.7 in four yellow squares (see Map 8.2). Demand has increased and the sports halls have aged, but the area does benefit from the opening of Matford Brook Academy sports hall in Teignbridge.
- 8.10 Local share is 0.6 in most of the remainder of Exeter. It is slightly lower at 0.5 in the Wonford area, and to the north, east and west of it. Demand is largely unchanged in the area and Wonford Sports Centre is refurbished in 2026, therefore increasing its attractiveness. However, four of the other sports halls in the area are quite old, two having been opened in 1970 and the other two in 1984 and 1989.
- 8.11 Local share is also 0.5 in the Topsham area of Exeter. Demand increases slightly to 2034 and there are no sports halls in the area, the nearest being Matford Brook Academy in Teignbridge.

Run 3

- 8.12 In Run 3 local share remains best with the same value in the same area of Tiverton. It is also 0.7 in the Pinhoe area (see Map 8.3). Cranbrook Sports Hall in East Devon is included in Run 3 and this benefits the northeast of Exeter. Local share in the Cranbrook area of East Devon increases to 1.1 and 1.0 from 0.7 in Run 2.
- 8.13 Local share remains poorest at 0.5 in Wonford and in one area to the north.

Comparative Measure of Provision

- 8.14 A comparative measure of sports hall provision is the number of badminton courts per 10,000 population.

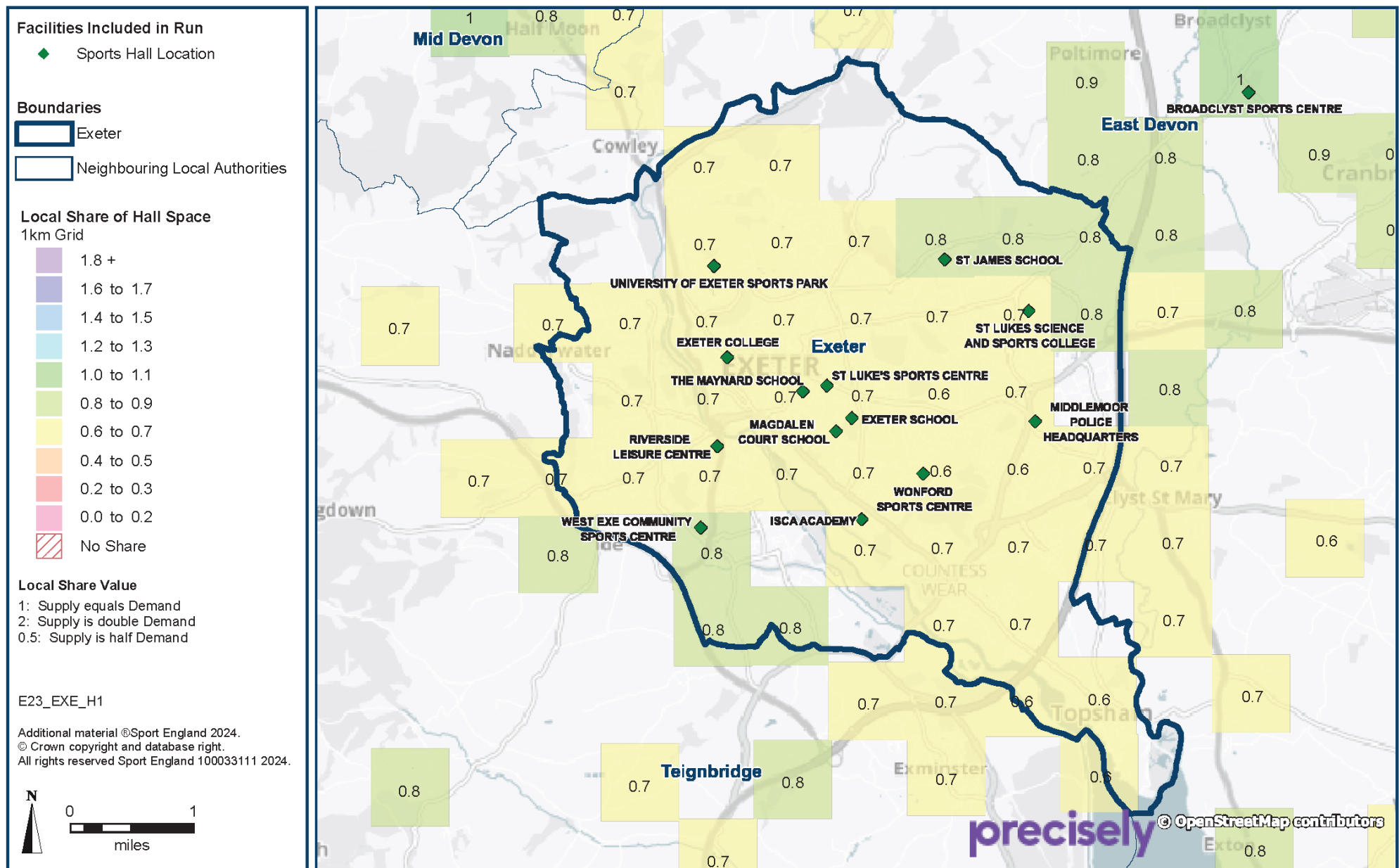
Table 8.2: Badminton Courts per 10,000 Population by Area and Run

Hall Space in Courts per 10,000 Population	Run 1	Run 2	Run 3
Area	2023	2034	2034
Exeter	4.9	4.6	4.6
East Devon	3.9	3.5	3.7
Mid Devon	4.4	4.0	4.0
Teignbridge	2.9	2.9	2.9
South West Region	4.3	4.1	4.1
England	4.0	3.9	3.9

- 8.15 Exeter has the best provision of sports halls per head of population across the study area in all runs, at 4.9 courts per 10,000 population in Run 1 and 4.6 courts in Runs 2 and 3.
- 8.16 Teignbridge has the lowest provision, at 2.9 courts per 10,000 population in all three runs.
- 8.17 Exeter's provision per 10,000 population is higher than both the regional average and national average in all three runs. The regional average is 4.3 courts in Run 1 and 4.1 courts in Runs 2 and 3. The national average is 4.0 courts in Run 1 and 3.9 courts in Runs 2 and 3.
- 8.18 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.
- 8.19 The supply and demand assessment for sports halls in Exeter is based on the findings from the previous six headings analysed in this report.

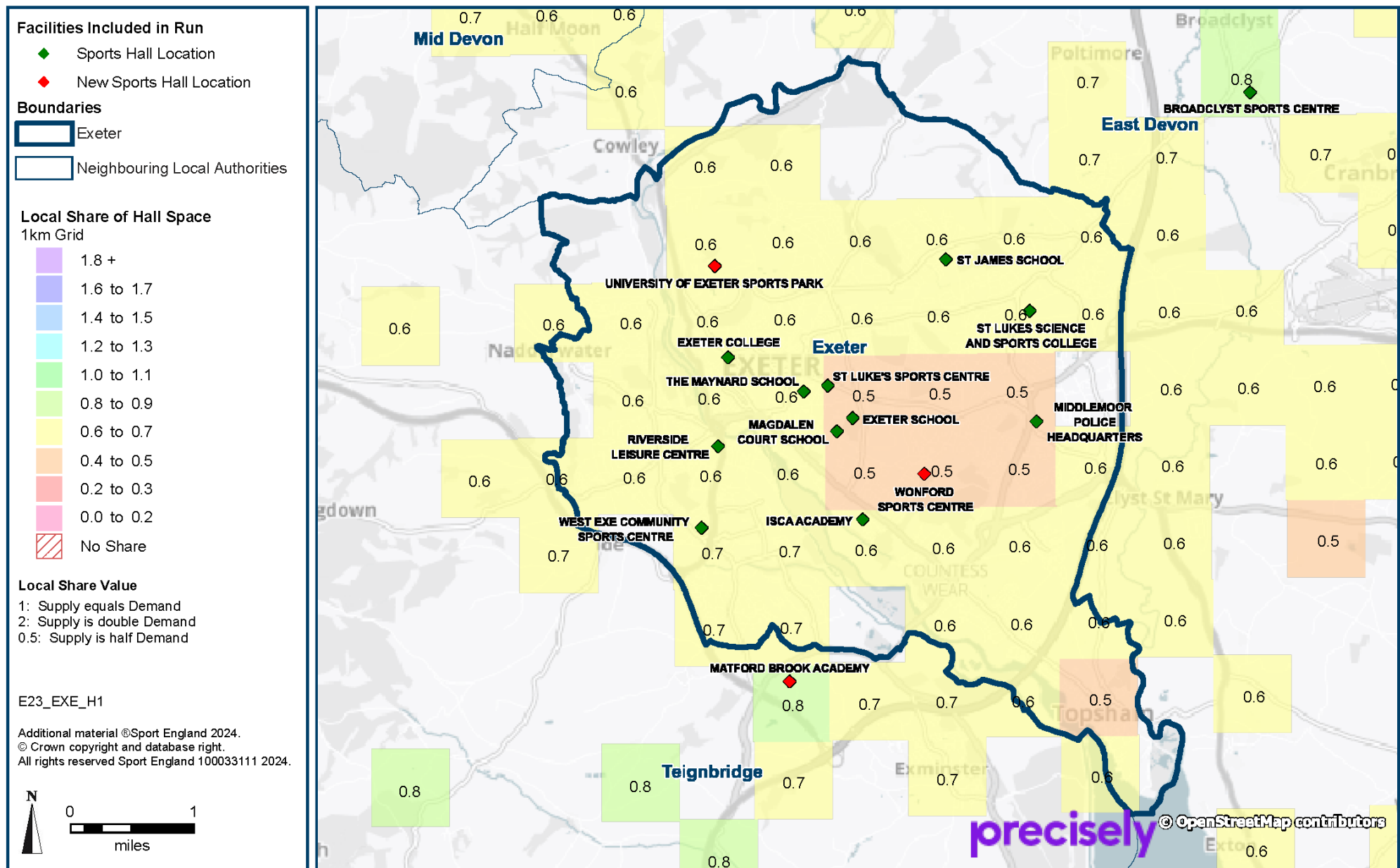
Map 8.1: Local Share of Sports Halls in Run 1 (2023)

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



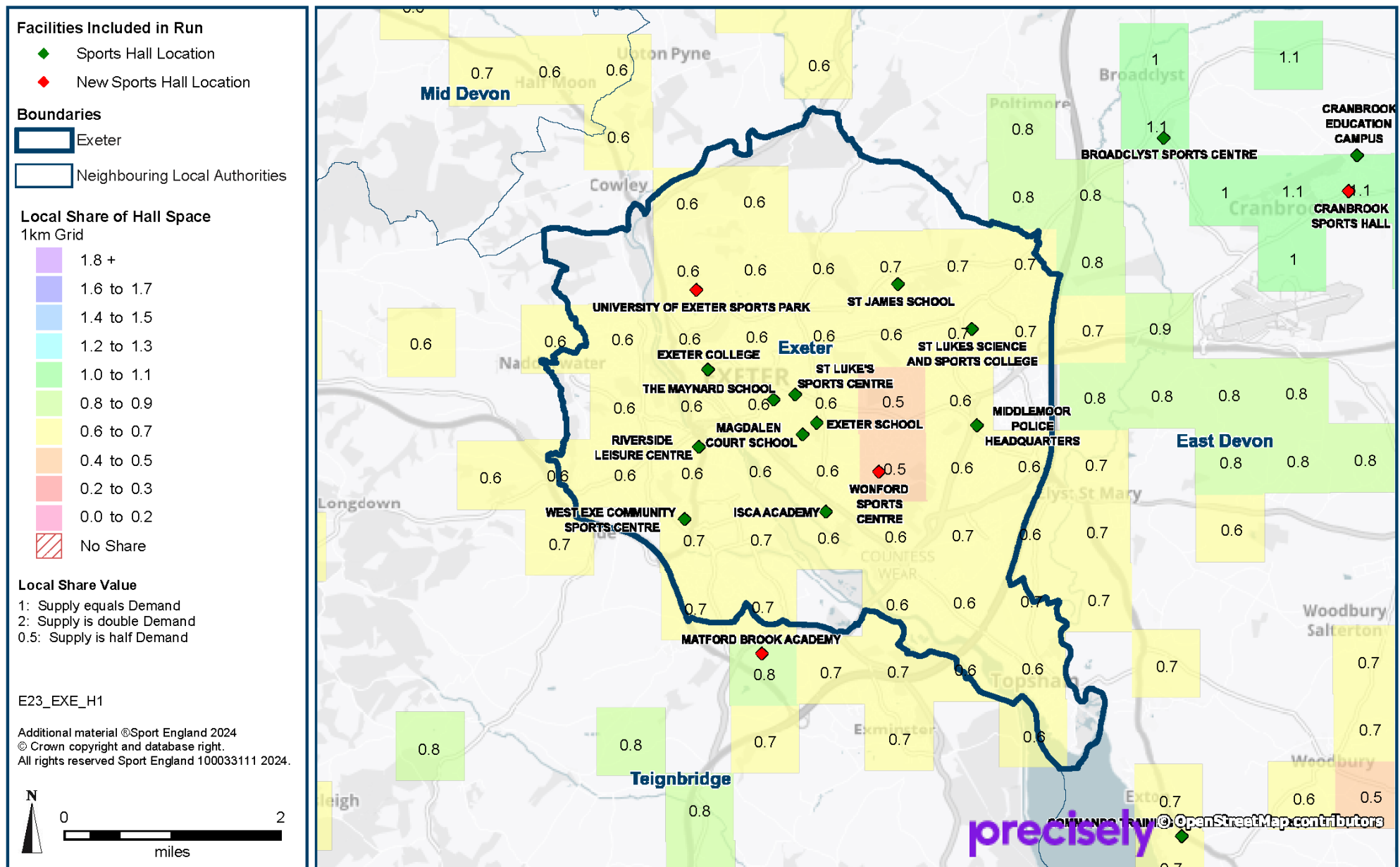
Map 8.2: Local Share of Sports Halls in Run 2 (2024)

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



Map 8.3: Local Share of Sports Halls in Run 3 (2034)

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



APPENDIX 1: FACILITIES EXCLUDED

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

Site	Facility Type	Reason for Exclusion
Atkinson Secure Children's Home	Activity	Private use
Avanti Hall School	Activity	Private use
Bramdean School (Closed)	Main	Closed
Clifton Hill Sports Centre (Closed)	Main	Closed
Countess Wear Community School	Activity	Private use
Ellen Tinkham School	Activity	Private use
Exeter College (Hele Road) (Closed)	Main	Closed
Exeter College (Hele Road) (Closed)	Activity	Closed
Exeter College (Queen Street)	Main	Private use
Exeter Royal Academy For Deaf Education (Closed)	Activity x2	Closed
Exeter Sports Academy	Activity	Closed
Matthews Hall	Activity	Principal hall too small
Met Office	Activity	Private use
Montgomery Primary School	Activity	Private use
Riverside Leisure Centre (Exeter)	Activity	Closed
St Lukes Church of England High School (Closed)	Activity	Closed
St Michael's Church of England Primary Academy	Activity	Principal hall too small
St Peters Church of England Aided School	Main	Private use
St Thomas Methodist Church	Activity	Principal hall too small
Stoke Hill Junior School	Activity	Principal hall too small
Whipton Barton Federation	Activity	Private use
Wynstream School	Activity	Private use

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

Site	Operation	Facility Type	Dimensions (m)	Area (sqm)	Year Built	Year Refurb
East Devon						
Axe Valley Academy	Edu. (3rd party)	3-court	27 x 18	486	1988	2006
		Activity	18 x 10	180		
Bicton College	Edu. (in-house)	4-court	35 x 20	690	2015	
Broadclyst Sports Centre	Edu. (3rd party)	4-court	33 x 18	594	1988	
Colyton Leisure Centre	Edu. (3rd party)	4-court	34 x 18	619	2003	2007
Commando Training Centre Royal Marines	Other	8-court	40 x 35	1,380	1973	
Cranbrook Education Campus	Edu. (in-house)	3-court	27 x 18	486	2016	
Cranbrook Sports Hall	Public	4-court	35 x 20	690	2028	
Exmouth Community College	Edu. (in-house)	4-court	35 x 20	690	1976	
		4-court	33 x 18	594		
		Activity	22 x 15	330		
		Activity	18 x 10	180		
Honiton Leisure Centre	Public	4-court	34 x 18	612	1980	
Ottery Leisure Centre	Public	4-court	33 x 18	594	1986	2008
Sidmouth Leisure Centre	Public	4-court	35 x 20	690	1981	1998
St John's International School	Edu. (in-house)	5-court	41 x 21	867	1988	
Mid Devon						
Blundells School	Edu. (in-house)	4-court	33 x 18	594	1980	2004
Culm Valley Sports Centre	Edu. (3rd party)	4-court	33 x 18	594	1985	2011
Lords Meadow Leisure Centre	Public	4-court	33 x 18	594	1990	
Queen Elizabeths School (Barnfield Campus)	Edu. (3rd party)	4-court	35 x 20	690	1962	2012
		Activity	18 x 10	180		
		Activity	18 x 10	180		
Queen Elizabeths School (Western Road Campus)	Edu. (3rd party)	4-court	35 x 20	690	1998	
Tiverton High School	Edu. (in-house)	4-court	35 x 20	690	1974	2010
Uffculme Academy	Edu. (in-house)	5-court	41 x 21	867	2007	
Waie Inn	Commercial	4-court	33 x 18	594	2018	
Teignbridge						
Ashmoor Sports Centre	Edu. (in-house)	4-court	33 x 18	594	1992	2007
		Activity	18 x 10	180		
Broadmeadow Sports Centre	Public	4-court	33 x 18	594	1977	
Coombeshead Academy	Edu. (in-house)	4-court	35 x 20	690	2003	
		Activity	18 x 10	180		
Dawlish Leisure Centre	Public	6-court	35 x 27	932	1994	2010
Matford Brook Academy	Edu. (in-house)	4-court	35 x 20	690	2025	
Morehampstead Sports & Community Centre	Other	3-court	27 x 18	486	2006	
Newton Abbot Leisure Centre	Public	4-court	33 x 18	594	1975	2011
		Activity	18 x 10	180		
Seale Hayne	Edu. (3rd party)	4-court	36 x 18	648	1979	2012
Teign School	Edu. (in-house)	5-court	41 x 21	867	2011	

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

2. Use of FPM

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

3. How the Model Works

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

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

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

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

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

4. Calculating Demand

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

5. Calculating Supply Capacity

- 5.1. A facility's capacity varies depending on its size (i.e., size of pool, hall, pitch number), and how many hours the facility is available for use by the community.
- 5.2. The FPM calculates a facility's capacity by applying each of the capacity factors taken from the model parameters, such as the assumptions made as to how many 'visits' can be

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

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

accommodated by the particular facility at any one time. Each facility is then given a capacity figure in VPWPP.

- 5.3. Based on travel time information³ taken from the user survey, the FPM then calculates how much demand would be met by the particular facility, having regard to its capacity and how much demand is within the facility's catchment. The FPM includes an important feature of spatial interaction. This feature takes account of the location and capacity of all the facilities, having regard to their location and the size of demand, and assesses whether the facilities are in the right place to meet the demand.
- 5.4. It is important to note that the FPM does not simply add up the total demand within an area and compare that to the total supply within the same area. This approach would not take account of the spatial aspect of supply against demand in a particular area. For example, if an area had a total demand for 5 facilities, and there were currently 6 facilities within the area, it would be too simplistic to conclude that there was an oversupply of 1 facility as this approach would not take account of whether the 5 facilities are in the correct location for local people to use them within that area. It might be that all the facilities were in one part of the City, leaving other areas under-provided. An assessment of this kind would not reflect the true picture of provision. The FPM is able to assess supply and demand within an area based on the needs of the population within that area.
- 5.5. In making calculations as to supply and demand, visits made to sports facilities are not artificially restricted or calculated by reference to administrative boundaries, such as local authority areas. Users are generally expected to use their closest facility. The FPM reflects this through analysing the location of demand against the location of facilities, allowing for cross-boundary movement of visits. For example, if a facility is on the boundary of a local authority, users will generally be expected to come from the population living close to the facility, but who may be in an adjoining authority.

6. Calculating the Capacity of Sports Halls – Hall Space in Courts (HSC)

- 6.1. The capacity of sports halls is calculated in the same way as described above, with each sports hall site having a capacity in VPWPP. In order for this capacity to be meaningful, these visits are converted into the equivalent of main hall courts and referred to as 'Hall Space in Courts' (HSC). This 'court' figure is often mistakenly read as being the same as the number of 'marked courts' at the sports halls that are in the Active Places data, but it is not the same. There will usually be a difference between this figure and the number of 'marked courts' in Active Places.
- 6.2. The reason for this is that the HSC is the 'court' equivalent of all the main and activity halls capacities; this is calculated based on hall size (area) and whether it is the main hall or a secondary (activity) hall. This gives a more accurate reflection of the overall capacity of the halls than simply using the 'marked courts' figure. This is due to two reasons:

³ To reflect the fact that as distance to a facility increases, fewer visits are made, the FPM uses a travel time distance decay curve, where the majority of users travel up to 20 minutes. The FPM also takes account of the road network when calculating travel times. Car ownership levels, taken from census data, are also taken into account when calculating how people will travel to facilities.

- In calculating the capacity of halls, the model uses a different 'At-One-Time' (AOT) parameter for main halls and for activity halls. Activity halls have a greater AOT capacity than main halls – see below. Marked courts can sometimes not properly reflect the size of the actual main hall. For example, a hall may be marked out with 4 courts, when it has space for 3 courts. As the model uses the 'courts' as a unit of size, it is important that the hall's capacity is included as a 3 'court unit' rather than a 4 'court unit'.
- The model calculates the capacity of the sports hall as 'visits per week in the peak period' (VPWPP), and then uses this unit of capacity to compare with demand, which is also calculated as VPWPP. It is often difficult to visualise how much hall space there is when expressed as VPWPP. To make things more meaningful, this capacity in VPWPP is converted back into 'main hall court equivalents' and is noted in the output table as 'Hall Space in Courts'.

7. Facility Attractiveness – for Halls and Pools Only

7.1. Not all facilities are the same, and users will find certain facilities more attractive to use than others. The model attempts to reflect this by introducing an attractiveness weighting factor, which affects the way visits are distributed between facilities. Attractiveness, however, is very subjective. Currently weightings are only used for sports hall and swimming pool modelling.

7.2. Attractiveness weightings are based on the following:

- Age/refurbishment weighting – pools and halls: The older a facility is, the less attractive it will be to users. It is recognised that this is a general assumption and that there may be examples where older facilities are more attractive than newly built ones due to excellent local management, programming, and sports development. Additionally, the date of any significant refurbishment is also included within the weighting factor; however, the attractiveness is set lower than a new build of the same year. It is assumed that a refurbishment that is older than 20 years will have a minimal impact on the facility's attractiveness. The information on year built/refurbished is taken from Active Places. A graduated curve is used to allocate the attractiveness weighting by year. This curve levels off at around 1920 with a 20% weighting. The refurbishment weighting is slightly lower than the new built year equivalent.
- Management and ownership weighting – halls only: Due to the large number of halls being provided by the education sector, an assumption is made that, in general, these halls will not provide as balanced a programme than halls run by local authorities, trusts, etc, with school halls more likely to be used by teams and groups through block booking. A less balanced programme is assumed to be less attractive to a general pay & play user than a standard local authority leisure centre sports hall with a wider range of activities on offer.

7.3. To reflect this, two weightings curves are used for education and non-education halls, a high weighted curve, and a lower weighted curve.

- High weighted curve – includes non-education management and a better balanced programme, more attractive.

- Lower weighted curve – includes educational owned and managed halls, less attractive.

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

8. Comfort Factor – Halls and Pools

- 8.1. As part of the modelling process, each facility is given a maximum number of visits it can accommodate based on its size, the number of hours it is available for community use, and the 'at one time capacity' figure (pools = 1 user/6m², halls = 8 users/court). This gives each facility a 'theoretical capacity.'
- 8.2. If the facilities were full to their theoretical capacity, then there would simply not be the space to undertake the activity comfortably. In addition, there is a need to take account of a range of activities taking place which have different numbers of users; for example, aqua aerobics will have significantly more participants than lane swimming sessions. Additionally, there may be times and sessions that, while being within the peak period, are less busy and so will have fewer users.
- 8.3. To account for these factors the notion of a 'comfort factor' is applied within the model. For swimming pools, 70%, and for sports halls, 80%, of their theoretical capacity is considered as being the limit where a facility starts to become uncomfortably busy. (Currently, the comfort factor is not applied to AGPs due to the fact they are predominantly used by teams which have a set number of players, therefore, the notion of having a 'less busy' pitch is not applicable.)
- 8.4. The comfort factor is used in two ways:
- Utilised capacity – How well used is a facility? 'Utilised capacity' figures for facilities are often seen as being very low at 50-60%; however, this needs to be put into context with 70-80% comfort factor levels for pools and halls. The closer utilised capacity gets to the comfort factor level, the busier the facilities are becoming. You should not aim to have facilities operating at 100% of their theoretical capacity, as this would mean that every session throughout the peak period would be being used to its maximum capacity. This would be both unrealistic in operational terms and unattractive to users.
 - Adequately meeting unmet demand – the comfort factor is also used to increase the number of facilities needed to comfortably meet unmet demand. If this comfort factor

is not applied, then any facilities provided will be operating at their maximum theoretical capacity, which is not desirable as noted previously.

9. Utilised Capacity (Used Capacity)

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

9.2. Utilised capacity refers to how much of a facility's theoretical capacity is being used. This can, at first, appear to be unrealistically low, with area figures being in the 50-60% region. Without any further explanation, it would appear that facilities are half empty. The key point is not to see a facility's theoretical maximum capacity (100%) as being an optimum position. This, in practice, would mean that a facility would need to be completely full every hour it was open during the peak period. This would be both unrealistic from an operational perspective and undesirable from a user's perspective, as the facility would be completely full.

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

9.4. As set out in the table below, usage of a pool will vary throughout the evening, with some sessions being busier than others through programming, such as an aqua-aerobics session between 7pm and 8pm and lane swimming between 8 and 9pm. Other sessions will be quieter, such as between 9 and 10pm. This pattern of use would mean a total of 143 swims taking place. However, the pool's maximum theoretical capacity is 264 visits throughout the evening. In this instance the pool's utilised capacity for the evening would be 54%.

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

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

10. Travel Times Catchments

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

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

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

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

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

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

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

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

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

Facility Inclusion Criteria

Sports Halls

The following inclusion criteria were used for this analysis.

- Include all operational sports halls available for community use i.e. pay and play, membership, sports club/community association.
- Exclude all halls not available for community use i.e. private use.
- Exclude all halls where the main hall is less than 3 courts in size.
- Include all 'planned', 'under construction' and 'temporarily closed' facilities only where all data is available for inclusion.
- Where opening times are missing, availability has been included based on similar facility types.
- Where the year built is missing assume date 1975⁴.

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

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

Model Parameters

Sports Halls Parameters

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