



Facilities Planning Model Assessment of
Swimming Pool Provision for
Braintree District Council

Bespoke Report

22 June 2026

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EXECUTIVE SUMMARY

Introduction

- 0.1 Braintree District Council (also referred to as Braintree, or the District) is reviewing its current provision of swimming pools and assessing future demand and level of provision required to 2041.
- 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 swimming pools.
- 0.3 The FPM modelling runs provide the following:
- Run 1 – baseline assessment of provision in 2025
 - Run 2 – forward assessment of demand for swimming pools and its distribution, based on the projected changes in population between 2025 and 2041
- 0.4 The main report sets out the findings under each of the seven assessment headings.
- 0.5 The next section of the report provides the headline strategic overview and the key findings and interventions arising from the FPM study on supply, demand and accessibility.

Headline Strategic Overview

- 0.6 The headline strategic finding is that Braintree has an extensive public swimming offer, having three public leisure centres. The centres are fit-for-purpose and provide all swimming activities. The centres are located in the areas of highest demand.
- 0.7 The available supply of swimming pools can meet Braintree's demand for swimming in both 2025 and 2041. Satisfied demand is very high, with almost all being met within Braintree. Unmet demand is very low.
- 0.8 The public leisure centres are estimated to be uncomfortably full (more than 70% utilised) at peak times in both years. The commercial pools are estimated to be less utilised.

Key Findings

- 0.9 The key findings that underpin the headline strategic overview are as follows:
1. In 2025 and 2041 the total water space in Braintree is 2,125 sqm of water, and the available water space in the weekly peak period is 2,054 sqm of water. Therefore, 3% of the water space is unavailable.
 2. The three public leisure centres provide 67% of the available capacity, and the four commercial sites provide 33% in both years.
 3. The public leisure centres will have an average age of 33 years in 2041.

4. Braintree's population is projected to increase by 4% between 2025 and 2041, resulting in a 2% increase in demand for swimming pools.
5. Braintree's demand is the equivalent of 57% of its available supply in 2025, increasing to 58% in 2041.
6. In 2025 and 2041, 95% of Braintree's demand is met. The number of visits met in the weekly peak period increases slightly from 9,732 in 2025 to 9,874 in 2041, due to the increase in demand.
7. Of Braintree's satisfied demand, 88% is met within the District in 2025, increasing to 90% in 2041.
8. Of Braintree's demand, 5% is unmet in both years, equating to 81 sqm of water in 2025 and 87 sqm of water in 2041. In 2025 all the unmet demand is due to being too far from a facility, decreasing to 95% in 2041. Unmet demand due to lack of capacity equates to 4 sqm of water in 2041.
9. The overall used capacity of Braintree's swimming pools in the weekly peak period is 70% in 2025, and 75% in 2041. In 2025 all three public leisure centres are estimated to be uncomfortably full. In 2041 two public leisure centres are estimated to be uncomfortably full, and Witham Leisure Centre is estimated to be 100% utilised.

Interventions and Next Steps

- 0.10 The quantitative and spatial assessment has identified that the supply of swimming pools is sufficient to meet the demand in Braintree up to 2041. There is no need to increase swimming pool provision.
- 0.11 The interventions aim to improve the balance between supply and demand by increasing availability at peak times at Halstead Leisure Centre and modernisation of the public leisure centres.
- 0.12 All the pools at Braintree Swimming and Fitness, and Witham Leisure Centre, are available for the maximum 52.5 hours in the weekly peak period. There is no scope to increase availability and capacity at peak times at either site. The intervention at these sites is to ensure that the programming of the main pool provides the most popular activities at peak times and accommodates the most demand.
- 0.13 Braintree Swimming and Fitness is the largest public leisure centre and has the greatest capacity in the District. The site is located in the area of highest demand. However, it meets the second most visits because it is close to Bannatyne Health Club, which is a small single pool site but was refurbished in 2025.
- 0.14 Witham Leisure Centre is the second largest public leisure centre. It meets the most visits because it is the most recent swimming pool to open and is, therefore, very attractive to residents. The site is located in the area of second highest demand. Furthermore, most imported demand in both 2025 and 2041 is from Colchester and Maldon, both of which are close to Witham Leisure Centre.

- 0.15 Halstead Leisure Centre is the most northerly swimming pool site in Braintree. There are extensive housing growth sites to the east of the centre to 2041. It is the oldest public leisure centre, having opened in 2004 and not refurbished to date. The centre has the smallest capacity of the public leisure centres because both the main pool and the teaching pool are smaller than those at the other public leisure centres. Its main pool is available for 37.5 hours in the weekly peak period. Availability at this site could be increased by up to 15.0 hours to reduce the proportion of used capacity.
- 0.16 In 2041 Halstead Leisure Centre will be 37 years old, and Witham Leisure Centre will be 27 years old – both sites are currently unmodernised. These centres should be refurbished by 2041 to maintain their attractiveness to residents.
- 0.17 Braintree Swimming and Fitness was refurbished in 2017 and will be 33 years old in 2041. Further modernisation should be considered to maintain the attractiveness of the site.
- 0.18 There may be scope to secure developer contributions towards the costs of modernisation and upgrading of the public leisure centres. Modernisation is required to meet the projected increase in demand while also retaining demand within the District.
- 0.19 Halstead Leisure Centre and Witham Leisure Centre are both located close to extensive housing growth areas. Some of the projected increase in demand will be from residents of these sites. It is suggested the Council investigates the scope to secure developer contributions to part meet some of the costs of modernising and upgrading these centres.
- 0.20 These interventions and suggested next steps are based on the FPM findings and should be considered as a key part of the all-round evidence base. 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 swimming pools up to 2041 and beyond.

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1 INTRODUCTION

- 1.1 Braintree District Council (also referred to as Braintree or the District) is reviewing its current provision of swimming pools and assessing the future provision required to 2041.
- 1.2 This report has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool. The FPM study is a quantitative, accessibility and spatial assessment of the supply, demand and access to swimming pools.
- 1.3 The key drivers for the work are to understand the impact of the following in 2041:
- How well the supply of swimming pools meets demand in 2025 and 2041
 - The impacts that population change and residential development have in meeting the demand for swimming pools and its distribution up to 2041
- 1.4 The outputs from the FPM assessment will:
- Inform Braintree District Council's strategic planning review of swimming pools provision and update the Council's Built Facilities Strategy
 - Inform an evidence base that contributes to the development of planning policy for the provision of indoor sports facilities
- 1.5 The sequence of work is based on assessments known as runs, and these are set out in the Executive Summary.

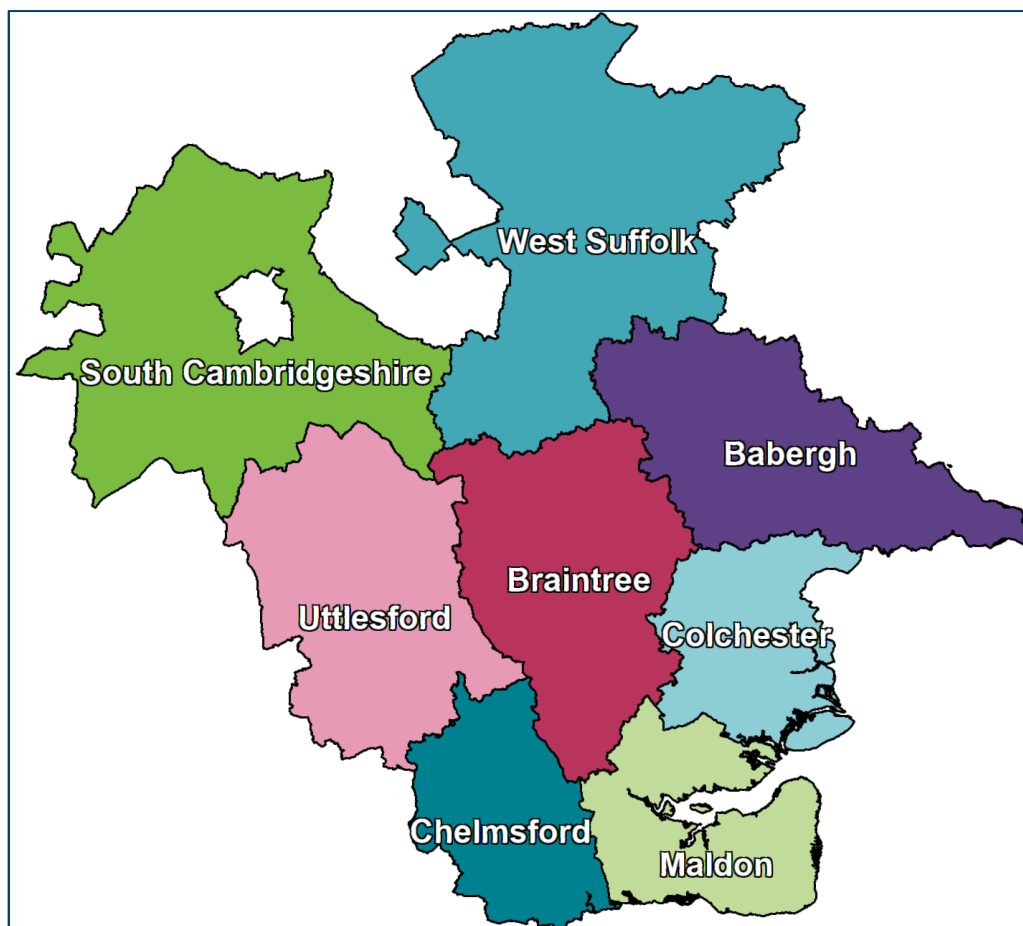
The Study Area

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

For residents of neighbouring local authorities, their most attractive swimming pool may be inside Braintree (known as imported demand).

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

Map 1.1: Study Area for Braintree Swimming Pools Assessment



Report Structure, Content and Sequence

- 1.11 The findings for the Braintree assessment are set out in a series of tables for both runs. This allows a 'read across' to see the specific impact of changes between Runs 1 and 2 and builds up the picture of change.
- 1.12 The headings for each table are:
- Supply
 - Demand
 - Accessibility
 - Satisfied Demand
 - Unmet Demand
 - Used Capacity
 - Local Share
- 1.13 The terms listed above are defined beneath the tables.

- 1.14 To support the findings, this report also includes maps that show swimming pool locations, demand, deprivation, driving and walking coverage, public transport access, exported satisfied demand, unmet demand, imported used capacity and local share.
- 1.15 Where valid, the findings for neighbouring local authorities are set out. A commentary is provided on these comparable findings; for example, some local authorities like to know how their findings on proportion of met demand compare with those of neighbouring local authorities.
- 1.16 The key findings in each of the sections are numbered and highlighted in bold typeface.
- 1.17 The facilities excluded from the study, with explanations, are listed in Appendix **1**. Details of the swimming pools in the neighbouring local authority areas included in the assessment are set out in Appendix **2**. The FPM and its parameters are described in Appendix **3**.
- 1.18 All maps for the study are provided in a separate document as layered PDFs.

2 SWIMMING POOL SUPPLY

Braintree has an extensive public swimming offer. There are three public leisure centres, and each has a main pool and a teaching pool. Braintree Swimming and Fitness also has a leisure pool.

There are four commercial sites, each with a single pool.

Halstead Leisure Centre is the only public leisure where availability and capacity in the weekly peak period can be increased.

The public leisure centres opened between 2004 and 2014. Halstead Leisure Centre is the oldest site and has not been refurbished.

Table 2.1: Supply of Swimming Pools in Braintree by Run

Supply	Run 1	Run 2
Braintree	2025	2041
Number of pools	11	11
Number of pool sites	7	7
Total water space in sqm	2,125	2,125
Available sqm of water in weekly peak period	2,054	2,054
Unavailable supply in the weekly peak period	3%	3%
Supply in visits per week in peak period	17,969	17,969
Average age of all of sites	21	37
Average age of public leisure centres	17	33

Definition of supply – This is the supply or capacity of the swimming pools available for community and swimming club use in the weekly peak period. Supply is expressed in the number of visits that a pool can accommodate in the weekly peak period and in square metres of water.

Weekly peak period – This is when most visits take place and when users have most flexibility to visit. The peak period for swimming pools is one hour on weekday mornings, one hour on weekday lunchtimes, five and a half hours on weekday evenings, and seven and a half hours on weekend days. This gives a total of 52.5 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 both 2025 and 2041 there are 11 swimming pools across seven sites in Braintree. The facilities excluded from the modelling are listed in Appendix 1.
- 2.2 **Key finding 1** is that in 2025 and 2041 the total water space in Braintree is 2,125 sqm of water, and the available water space in the weekly peak period is 2,054 sqm of water. Therefore, 3% of the water space is unavailable.

Table 2.2: Details of Swimming Pools in Braintree Included in the Runs

Site	Provider	Facility Type	Dimensions (m)	Area (sqm)	Year Built	Year Refurb	Peak Hours	Total Hours	Capacity (visits in weekly peak period)
Braintree Swimming and Fitness	Public	8-lane Leisure Teaching	25 x 18 12 x 9 13 x 7	450 108 91	2008	2017	52.5	100	5,679
Halstead Leisure Centre	Public	5-lane Teaching	25 x 10 10 x 5	250 50	2004		37.5	80.5	2,000
Witham Leisure Centre	Public	6-lane Teaching	25 x 13 13 x 13	325 169	2014		52.5	100	4,323
Bannatyne Health Club	Commercial	Main	20 x 8	160	2003	2025	52.5	98	1,400
Benton Hall Golf and Country Club	Commercial	Main	18 x 9	162	2006		52.5	102.5	1,418
Prested Hall Hotel and Sports Club	Commercial	Main	20 x 12	240	2002		52.5	89.8	2,100
The Essex Golf and Country Club	Commercial	Main	15 x 8	120	1991		52.5	104.5	1,050

Providers

- 2.3 There are three public leisure centres in Braintree that are available to all residents and provide all the following swimming activities:
- Learn to swim
 - Casual recreational swimming
 - Lane and fitness swimming activities
 - Swimming development through clubs
 - Fun and family-based activities (Braintree Swimming and Fitness)
- 2.4 There are four commercial sites that are membership-based and provide recreational swimming. Three of the sites operate a learn to swim school, the exception being Prested Hall Hotel and Sports Club.

Scale

- 2.5 Braintree Swimming and Fitness is the largest swimming pool site in Braintree and has a 25m x 18m eight-lane pool, a 13m x 7m teaching pool and a 12m x 9m leisure pool (this is the only leisure water in the District).
- 2.6 The other two public leisure centres each have a 25m pool and a teaching pool. Witham Leisure Centre is the larger of the two sites, with a six-lane pool and a 13m x 13m teaching pool. Halstead Leisure Centre has a five-lane pool and a 10m x 5m teaching pool.
- 2.7 All four commercial sites have a single pool. Prested Hall Hotel and Sports Club has the largest pool with dimensions of 20m x 12m. The Essex Golf and Country Club is the smallest pool in the District with dimensions of 15m x 8m.

Availability

- 2.8 Regarding public leisure centres, all the pools at Braintree Swimming and Fitness, and Witham Leisure Centre, are available for the maximum 52.5 hours in the weekly peak period. There is no scope to increase availability and capacity at peak times.
- 2.9 The main pool at Halstead Leisure Centre is available for 37.5 hours in the weekly peak period. There is scope to increase availability and capacity by up to 15.0 hours if there is sufficient demand.
- 2.10 All four commercial pools are available to their membership for the maximum 52.5 hours in the weekly peak period.

Capacity

- 2.11 **Key finding 2** is that the three public leisure centres provide 67% of the available capacity, and the four commercial sites 33%, in both 2025 and 2041.
- 2.12 Braintree Swimming and Fitness has the largest capacity in Braintree at 5,679 visits in the weekly peak period, and accounts for 32% of the available capacity in the District.
- 2.13 Halstead Leisure Centre's smaller size and lower availability mean it has the smallest capacity of the public leisure centres, at 2,000 visits in the weekly peak period and accounting for 11% of the available capacity in the District.
- 2.14 Witham Leisure Centre has a capacity of 4,323 visits in the weekly peak period, and accounts for 24% of the available capacity.
- 2.15 Prested Hall Hotel and Sports Club has the largest capacity of the commercial sites, at 2,100 visits in the weekly peak period and accounting for 12% of the District's available capacity.
- 2.16 The Essex Golf and Country Club has the smallest capacity in Braintree, at 1,050 visits in the weekly peak period and accounting for 6% of the District's available capacity.

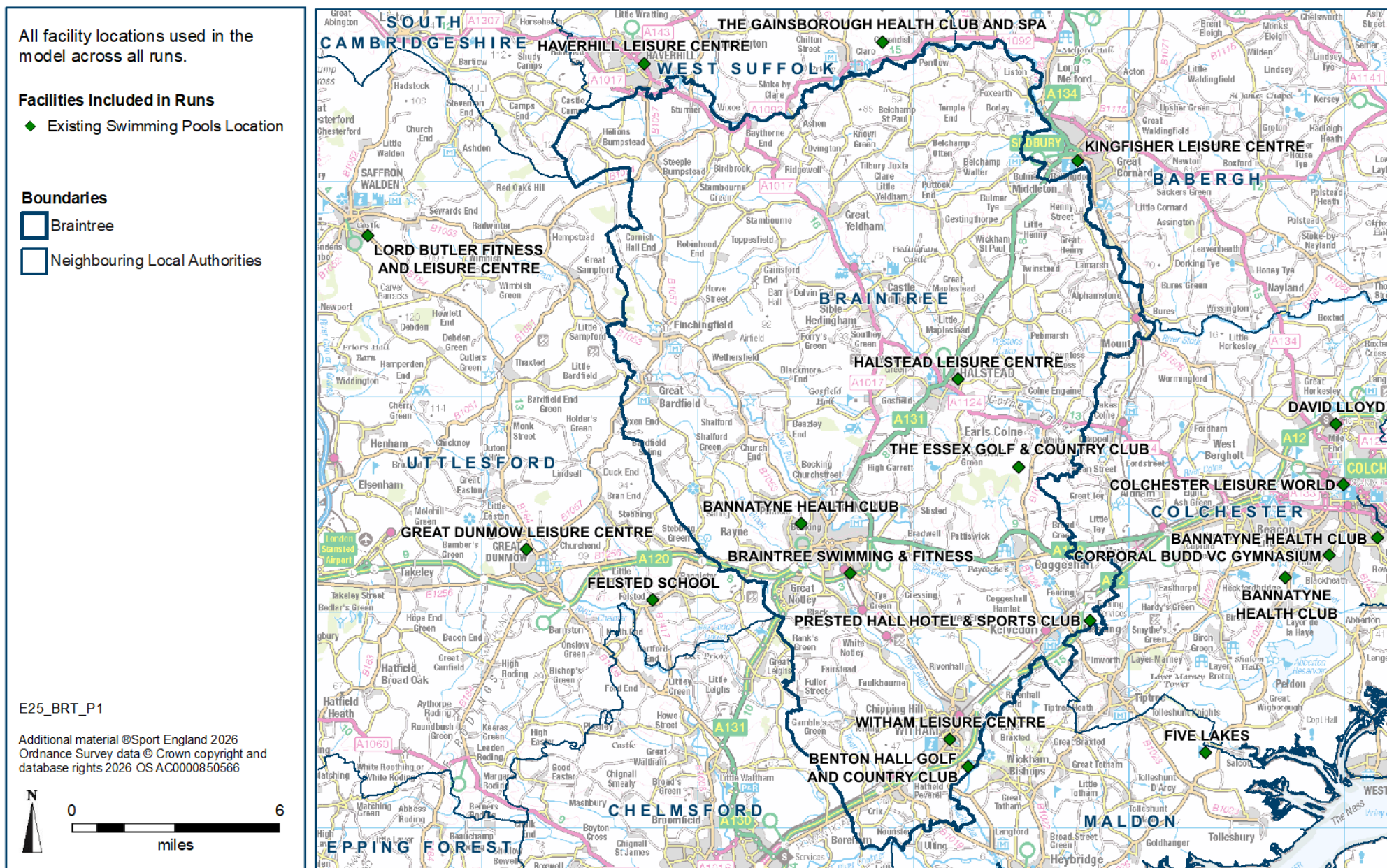
Age

- 2.17 The oldest swimming pool in Braintree is The Essex Golf and Country Club, which opened in 1991 and has not been refurbished.
- 2.18 Five of the seven swimming pool sites opened between 2002 and 2008. Two of these sites have been refurbished. Braintree Swimming and Fitness was modernised in 2017.
- 2.19 The most recent swimming pool site to open is Witham Leisure Centre in 2014.
- 2.20 **Key finding 3** is that the public leisure centres will have an average age of 33 years in 2041. There will be an increasing need for modernisation.

Swimming Pool Locations

- 2.21 Six of the swimming pool sites in Braintree are located in the southern half of the District (see Map 2.1).
- 2.22 Two swimming pool sites in West Suffolk, and one in Babergh, are located very close to the border with Braintree.

Map 2.1: Location of Swimming Pools Across All Runs (2025 and 2041)



3 DEMAND FOR SWIMMING POOLS

Demand for swimming pools in Braintree is less than its available supply in both 2025 and 2041.

Demand is greatest in Braintree town, Witham and Halstead. There is a public leisure centre in each of these areas.

Braintree has the smallest increase in demand to 2041 in the study area.

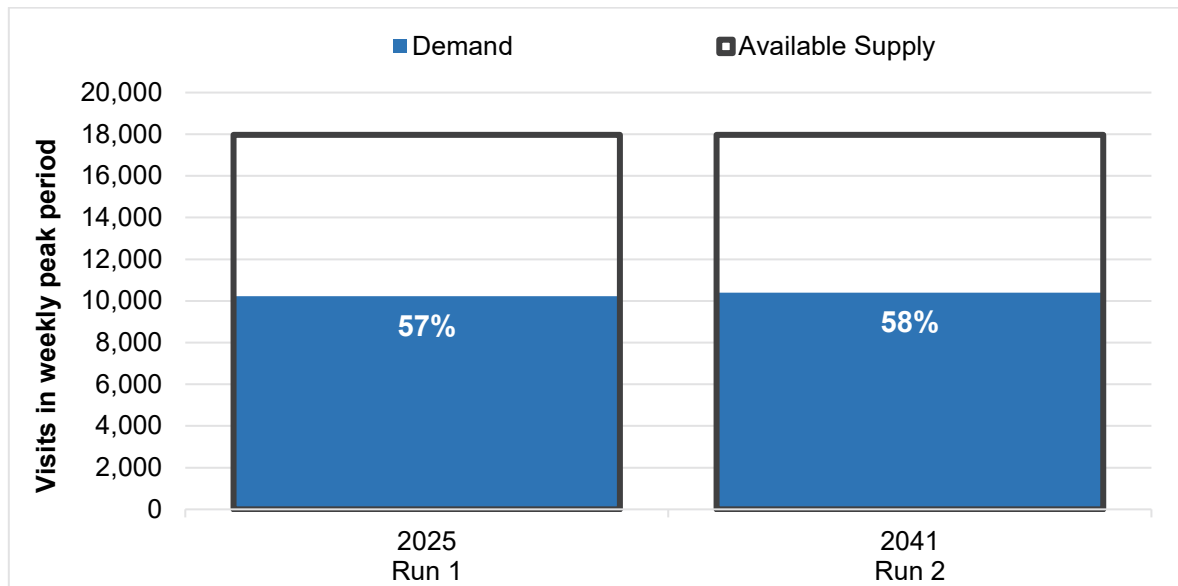
Table 3.1: Demand for Swimming Pools in Braintree by Run

Demand	Run 1	Run 2
Braintree	2025	2041
Resident population	154,464	161,079
Visits demanded in weekly peak period	10,226	10,400
Demand in sqm of water with comfort factor included	1,682	1,710
% of demand in the 10% most deprived LSOAs nationally	0%	0%

Definition of total demand – This represents the total demand for swimming by gender and for six age bands from 0 to 80+ 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 square metres of water. The FPM parameters for the percentage of participation and frequency of participation, for gender and for different age bands, are calculated from Sport England's Active Lives survey up to November 2023 and are set out in Appendix 3.

- 3.1 Demand is calculated from the resident population. Braintree District Council provided its population forecast for 2025 and 2041, as well as details of housing growth sites which are shown on Map 3.1.
- 3.2 **Key finding 3** is that Braintree's population is projected to increase by 4% between 2025 and 2041, resulting in a 2% increase in demand for swimming pools.
- 3.3 The smaller increase in demand compared with the population growth is because of the ageing of the population in Braintree between 2025 and 2041. There will be fewer residents in the age bands with the highest swimming participation (0-15 year olds and 25-39 year olds) in 2041 than in 2025. The rate and frequency of swimming participation is assumed to be unchanged between the two years (for participation rates and frequency, see Appendix 3: Swimming Pools Parameters).

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



- 3.4 **Key finding 4** is that Braintree's demand is the equivalent of 57% of its available supply in 2025, increasing to 58% in 2041.

Demand in the Study Area

Table 3.2: Demand for Swimming Pools by Area and Run

Demand in Sqm of Water Considering a 'Comfort' Factor	Run 1	Run 2	Difference 2025 to 2041	
Area	2025	2041	Sqm of Water	% Change
Braintree	1,682	1,710	29	2%
South Cambridgeshire	1,902	2,091	189	10%
Chelmsford	2,059	2,191	132	6%
Colchester	2,231	2,385	154	7%
Maldon	742	813	72	10%
Uttlesford	1,062	1,201	138	13%
Babergh	1,026	1,108	83	8%
West Suffolk	2,005	2,130	125	6%

- 3.5 In 2025 and 2041, four of the neighbouring local authorities have higher demand than Braintree and three have lower demand.
- 3.6 In the neighbouring local authorities, based on ONS population projections, Uttlesford has the largest projected increase in demand at 13%. Demand in South Cambridgeshire and Maldon increases by 10%.

Geographical Distribution of Demand

- 3.7 The three public leisure centres are all located in the areas of highest demand. Demand is much lower in the northern half of the District.

2025

- 3.8 In 2025 the greatest densities of demand per square kilometre are in Braintree town at 53 sqm of water, and Witham at 46 sqm of water (pink squares in Map 3.2).
- 3.9 Demand is highest across nine square kilometres in the following areas:
- Braintree town – 270 sqm of water (Bannatyne Health Club is to the west of this area and Braintree Swimming and Fitness to the south)
 - Witham – 176 sqm of water (Witham Leisure Centre is within this area)
 - Halstead – 106 sqm of water (Halstead Leisure Centre is within this area)
 - Great Notley – 90 sqm of water
- 3.10 In most of the northern part of the District demand is sparse and equates to less than 6 sqm of water per square kilometre (purple squares).

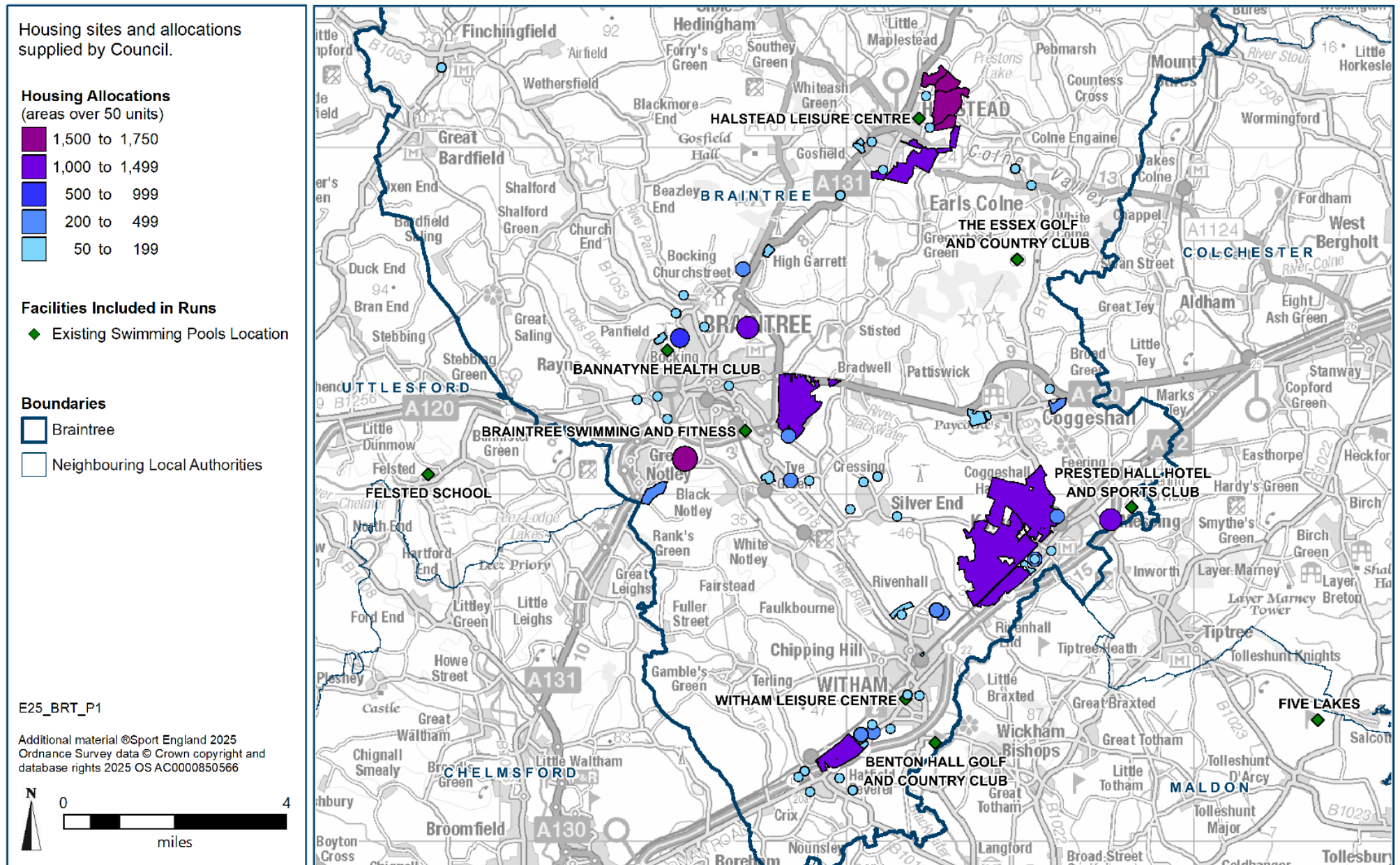
2041

- 3.11 In 2041 demand remains highest in the same areas as 2025 (see Map 3.3):
- Braintree town – decreases by 41 sqm of water to 229 sqm of water
 - Witham – decreases by 22 sqm of water to 154 sqm of water
 - Halstead – increases by 15 sqm of water to 121 sqm of water
 - Great Notley – decreases by 9 sqm of water to 81 sqm of water
- 3.12 Outside of these areas, the places with the largest increase in demand per square kilometre are:
- South of Braintree town – increases by 29 sqm of water to 36 sqm of water (orange square)
 - Northeast Kelvedon – increases by 17 sqm of water to 22 sqm of water (dark green square)
 - Hatfield Peverel – increases by 12 sqm of water to 16 sqm of water (light blue square)
 - East of Braintree town – increases by 11 sqm of water to 11 sqm of water (medium blue squares)
 - Northwest Kelvedon – increases by 11 sqm of water to 11 sqm of water (medium blue square)
- 3.13 Other areas of the District only have minor changes in demand.

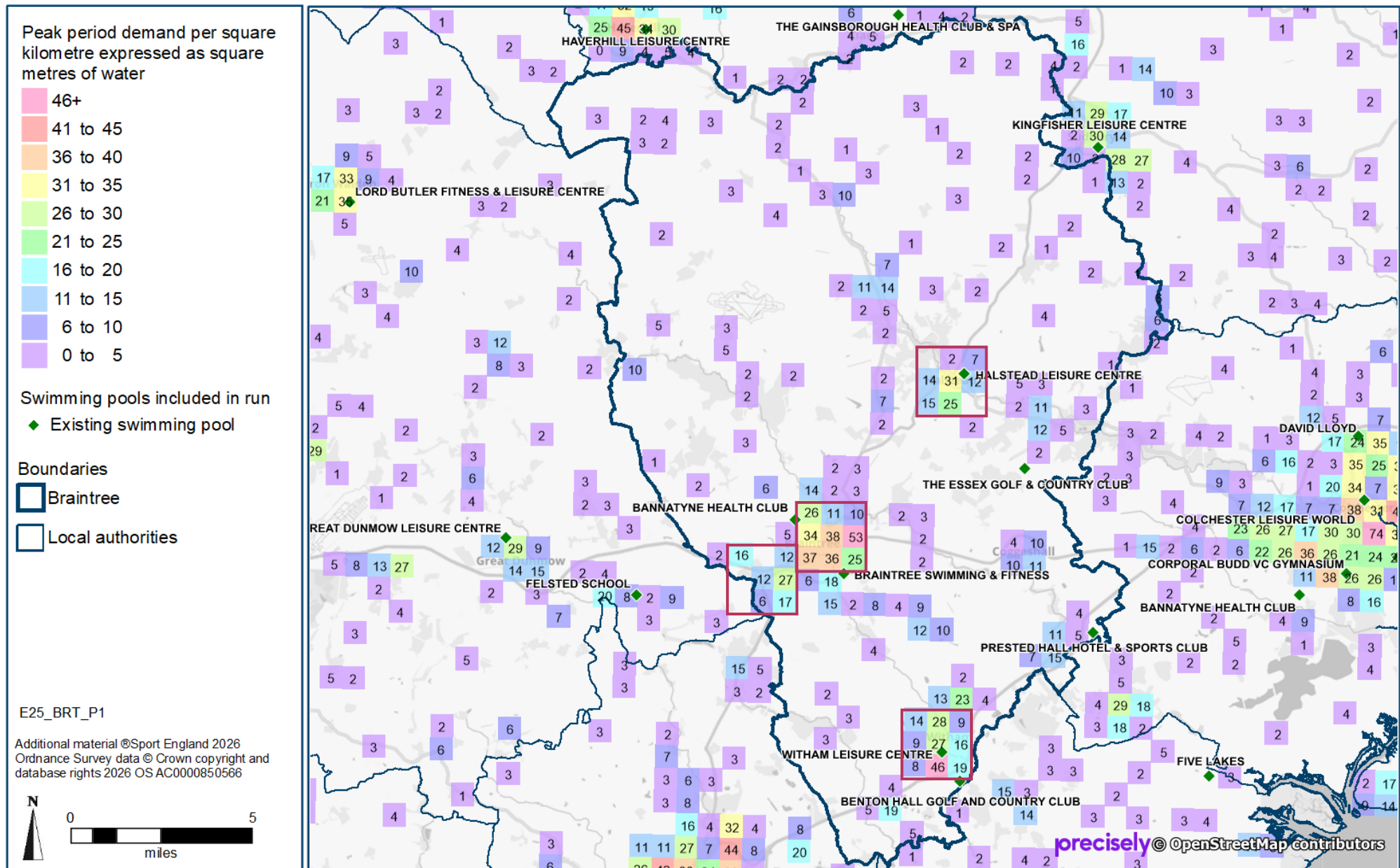
Deprivation

- 3.14 None of Braintree's demand is in the 10% most-deprived lower super output areas (LSOAs) nationally.
- 3.15 The areas of greatest deprivation in Braintree are in the 20% most-deprived LSOAs and are located in southwest Halstead and north of Braintree town (dark red areas in Map **3.4**).
- 3.16 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.

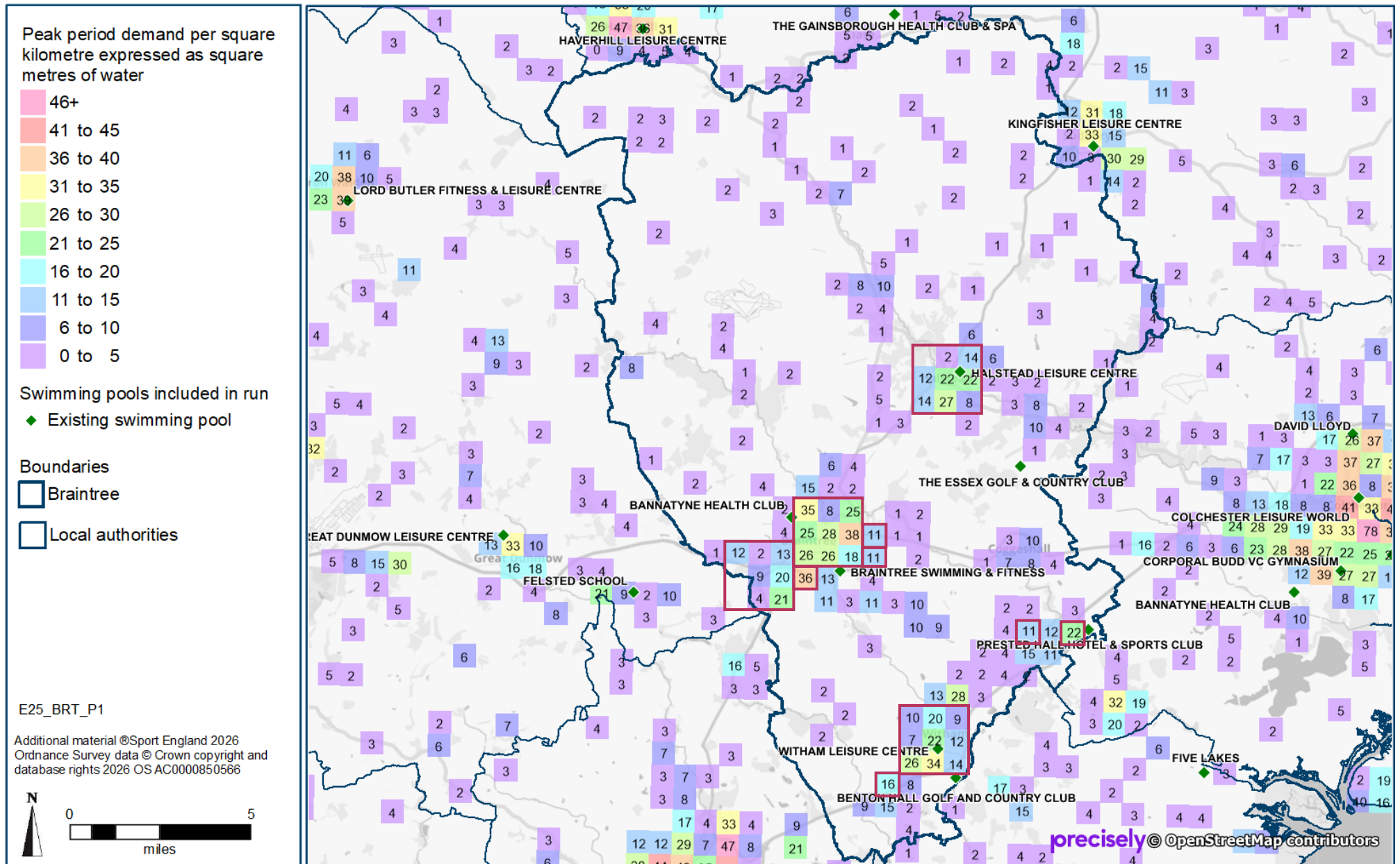
Map 3.1: Housing Growth Areas in Braintree to 2041 (Run 2)



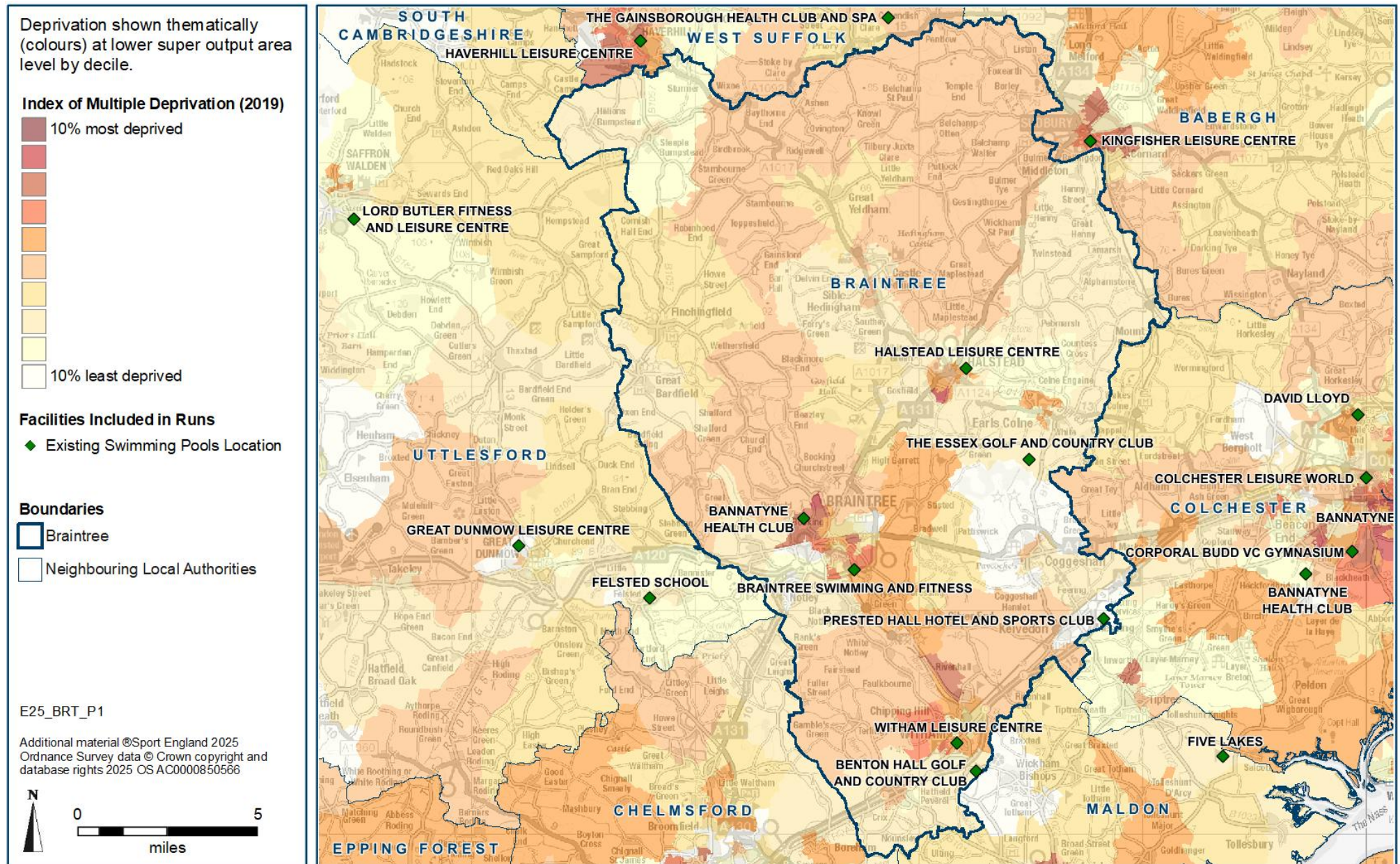
Map 3.2: Demand for Swimming Pools in 2025 (Run 1)



Map 3.3: Demand for Swimming Pools in 2041 (Run 2)



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



4 ACCESSIBILITY

In 2025, 25% of Braintree's residents are within a 20-minute walk of a swimming pool. This proportion decreases to 22% in 2041 as a result of the location of the new housing developments in relation to the existing stock.

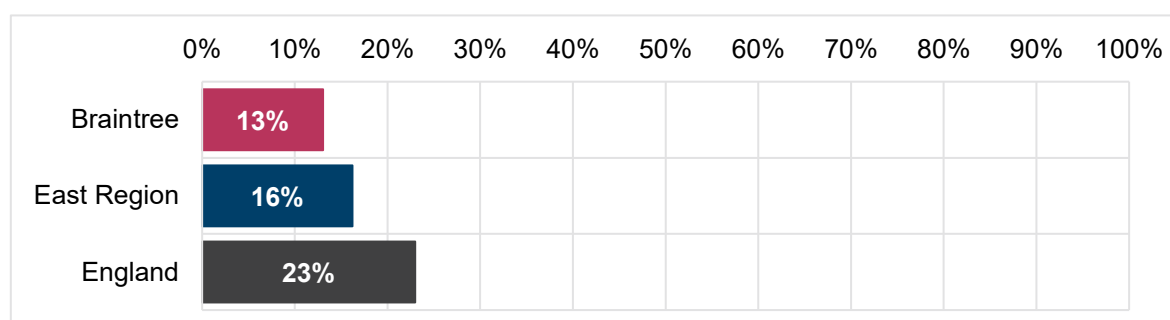
Driving access is best in the far south of the District, where some residents can drive to between 15 and 17 swimming pool sites within 20 minutes. Residents in the northwest and northeast of the District can reach the fewest sites.

Table 4.1: Travel Mode of Braintree Demand to Swimming Pools by Run

Accessibility	Run 1	Run 2
Braintree	2025	2041
% of total residents within a 20-minute walk of a swimming pool	25%	22%
% of demand satisfied when travelled:		
on foot	9%	8%
by public transport or bicycle	6%	6%
by car	85%	86%

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 swimming pool.

Chart 4.1: Proportion of Residents Without Access to a Car



- 4.1 In Braintree, 13% of residents do not have access to a car. This is lower than both the regional average of 16% and the national average of 23%. For these residents, a network of accessible swimming pools is important in order to encourage swimming participation.

Walking Access

- 4.2 Of Braintree's residents, 25% are within a 20-minute walk of a swimming pool in 2025, decreasing to 22% in 2041 when the supply is unchanged and the new housing developments are included.
- 4.3 In a small area of Witham residents can walk to both Witham Leisure Centre and Benton Hall Golf and Country Club within 20 minutes (medium orange area in Map 4.1).
- 4.4 However, not all residents in these areas will walk to a swimming pool and some will travel further. It is estimated that the proportion of journeys made on foot to swimming pools by Braintree residents is 9% in 2025, and 8% in 2041.

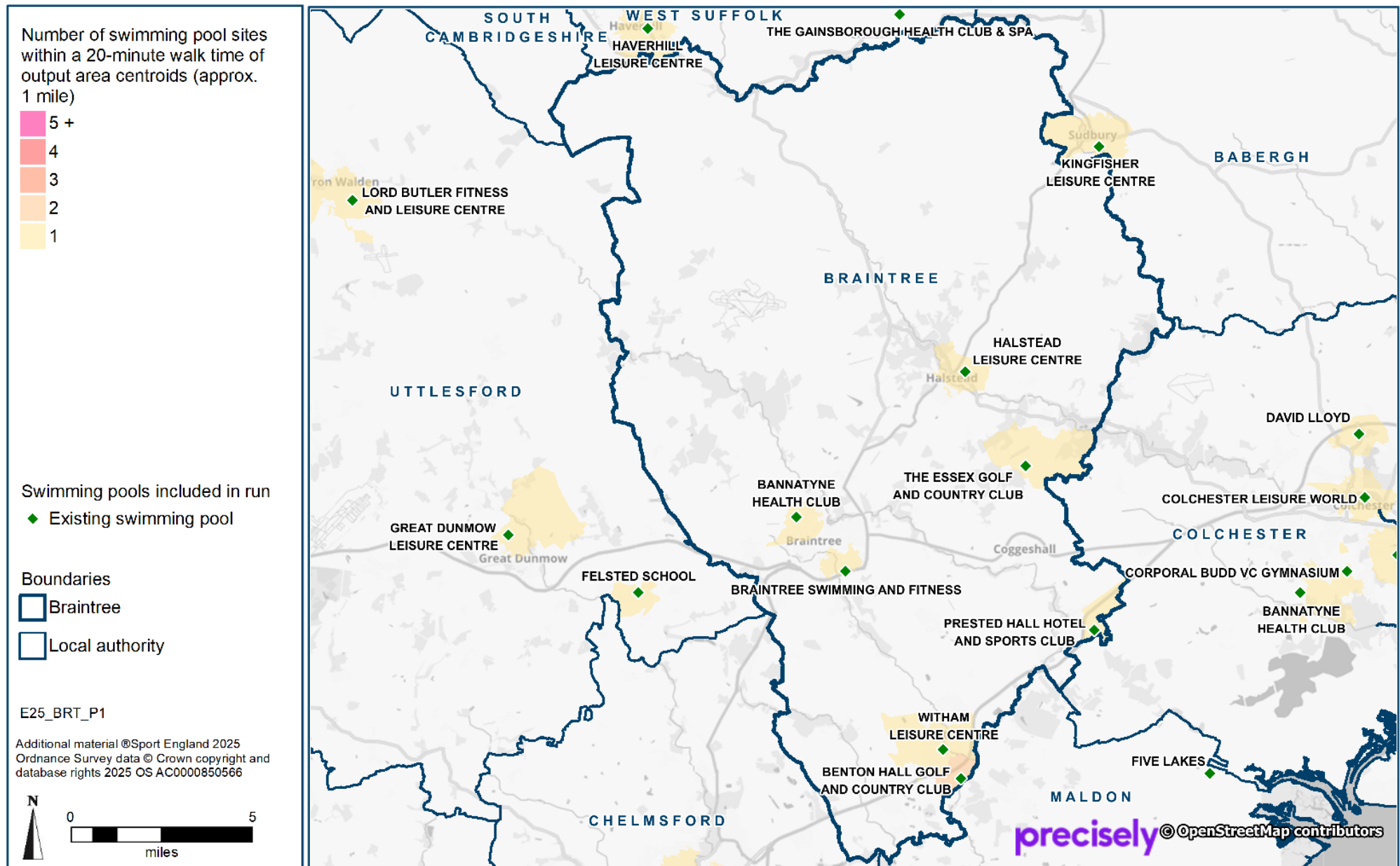
Public Transport Access

- 4.5 The public leisure centres are within a five-minute walk of an existing bus stop (pink areas in Map 4.1). The commercial sites are more than a five-minute walk from a bus stop.
- 4.6 Braintree Swimming and Fitness is within a five-minute walk of Braintree Freeport station (purple areas).
- 4.7 It should be noted that, while most Braintree residents can access an existing public transport stop, it may not mean they can get to a swimming pool within 20 minutes from home via a combination of walking and public transport. Also, in rural areas the service may be irregular.
- 4.8 It is estimated that 6% of all journeys to swimming pools by Braintree residents are made by public transport or bicycle in both years.

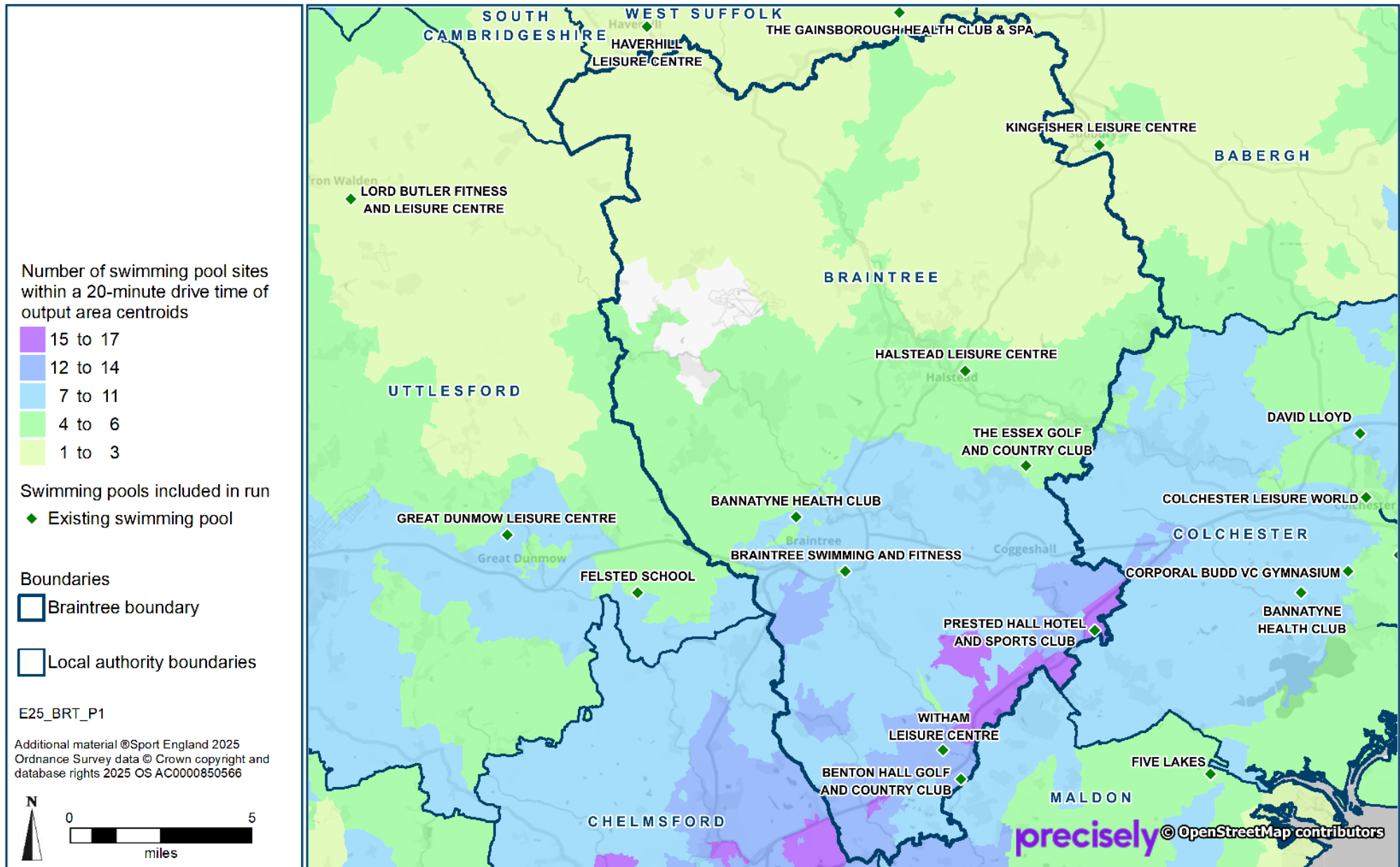
Driving Access

- 4.9 In 2025 and 2041, residents in the northeast and northwest of Braintree can reach between one and three swimming pool sites within a 20-minute drive (light green areas in Map 4.3). However, Wethersfield Airfield is more than a 20-minute drive to a swimming pool (grey area).
- 4.10 Residents in Halstead can drive to between four and six sites within 20 minutes (dark green areas), and residents in Braintree town can reach between seven and 11 sites (light blue areas).
- 4.11 Access to swimming pools is best along the A12. Residents in Witham and Kelvedon can reach between 12 and 14 sites within a 20-minute drive (dark blue areas). Hatfield Peverel and Rivenhall End are within a 20-minute drive of between 15 and 17 sites.
- 4.12 It is estimated that 85% of all journeys to swimming pools by Braintree residents are by car in 2025, and 86% in 2041.

Map 4.1: Walking Access to Swimming Pools in 2025 and 2041 (Runs 1 and 2)



Map 4.3: Driving Access to Swimming Pools in 2025 and 2041 (Runs 1 and 2)



5 SATISFIED DEMAND FOR SWIMMING POOLS

Nearly all of Braintree's demand in 2025 and 2041 is met by its existing available supply, and most is met within the District.

In 2025, 12% of Braintree's demand is exported and met in other local authorities. This decreases slightly to 10% in 2041.

The largest amount of exported demand goes to West Suffolk in both years.

Table 5.1: Satisfied Demand for Swimming Pools in Braintree by Run

Satisfied Demand	Run 1	Run 2
Braintree	2025	2041
Number of visits which are met per week in peak period	9,732	9,874
% of total demand satisfied	95%	95%
Number of visits retained per week in peak period	8,611	8,917
Demand retained as a % of satisfied demand	88%	90%
Number of visits exported per week in peak period	1,121	956
Demand exported as a % of satisfied demand	12%	10%

Definition of satisfied demand – This represents the proportion of total demand that is met by the capacity at the swimming pools from Braintree residents who live within the travel time of a pool. This includes pools located both within and outside Braintree.

- 5.1 **Key finding 5** is that 95% of Braintree's demand is met in both 2025 and 2041. The number of visits met in the weekly peak period increases slightly from 9,732 in 2025 to 9,874 in 2041, due to the increase in demand.

Table 5.2: Proportion of Demand Met by Area and Run

Proportion of Demand Met	Run 1	Run 2
Area	2025	2041
Braintree	95%	95%
South Cambridgeshire	87%	86%
Chelmsford	98%	98%
Colchester	89%	88%
Maldon	87%	86%
Uttlesford	96%	96%
Babergh	93%	93%
West Suffolk	94%	94%
East Region	93%	93%
England	93%	93%

- 5.2 Braintree's proportion of satisfied demand is greater than the regional and national averages (both 93% in 2025 and 2041).
- 5.3 Braintree has the third highest proportion of met demand within the study area. The highest proportion is in Chelmsford at 98% in both years. South Cambridgeshire and Maldon have the lowest proportion of demand met in the study area, at 87% in 2025 and 86% in 2041.
- 5.4 Details of the swimming pools in the neighbouring local authority areas are listed in Appendix 2.

Retained Demand

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

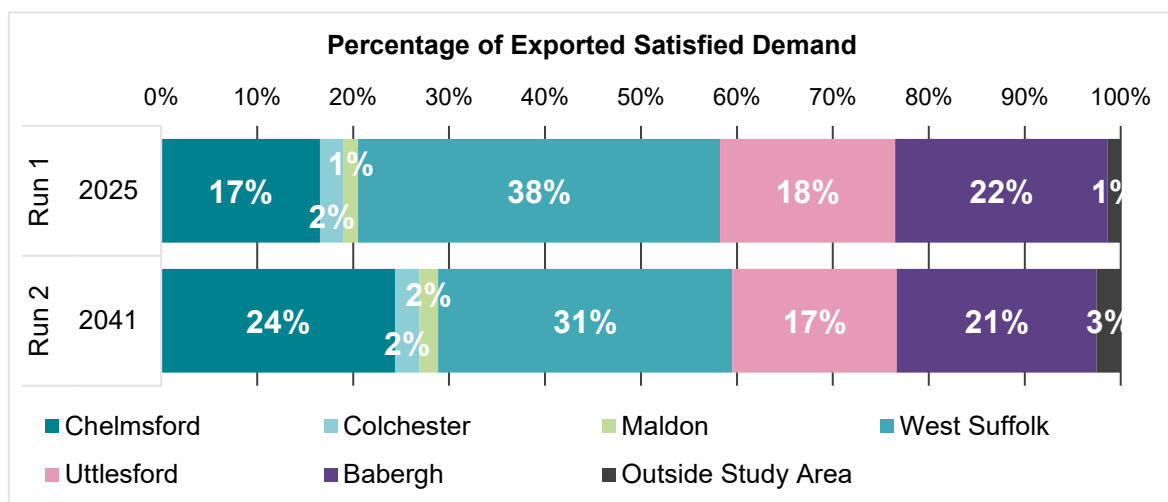
- 5.5 **Key finding 6** is that 88% of Braintree's satisfied demand is met within the District in 2025, increasing to 90% in 2041.

Exported Demand

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

- 5.6 Of Braintree's satisfied demand, 1,121 visits in the weekly peak period are met at swimming pools in other local authorities in 2025, decreasing to 956 visits in 2041.

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



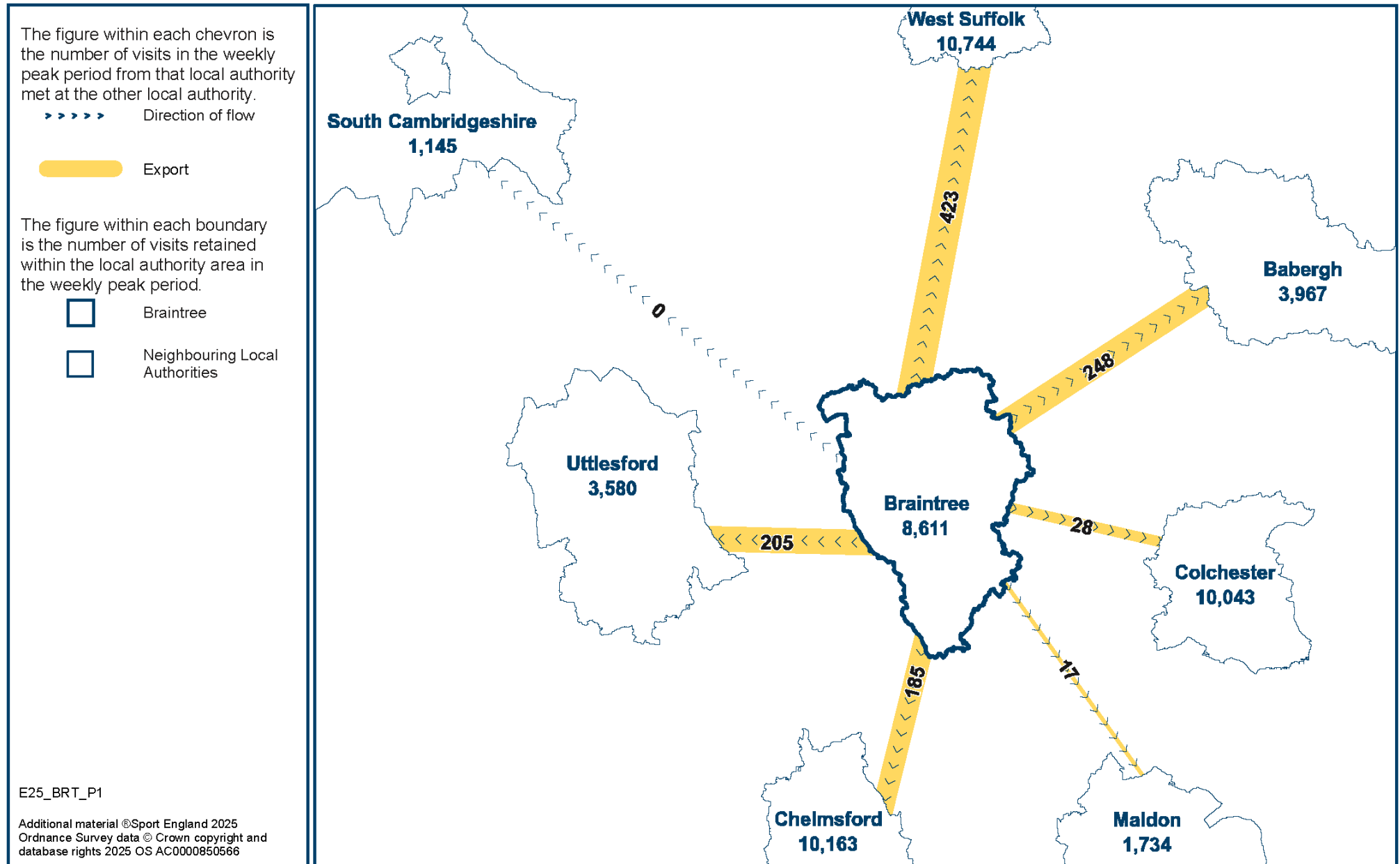
2025

- 5.7 In 2025 the largest amount of Braintree's exported demand goes to West Suffolk, accounting for 38% of exported demand and equating to 423 visits in the weekly peak period. The second largest amount of exported demand goes to Babergh, accounting for 22% of exported demand and 248 visits in the weekly peak period.
- 5.8 There are no swimming pool sites in Braintree north of Halstead. Haverhill Leisure Centre in West Suffolk and Kingfisher Leisure Centre in Sudbury are located very close to the border with Braintree and will be accessible to some Braintree residents. Both sites have large capacities, and Haverhill Leisure Centre was refurbished in 2025, therefore making it very attractive.

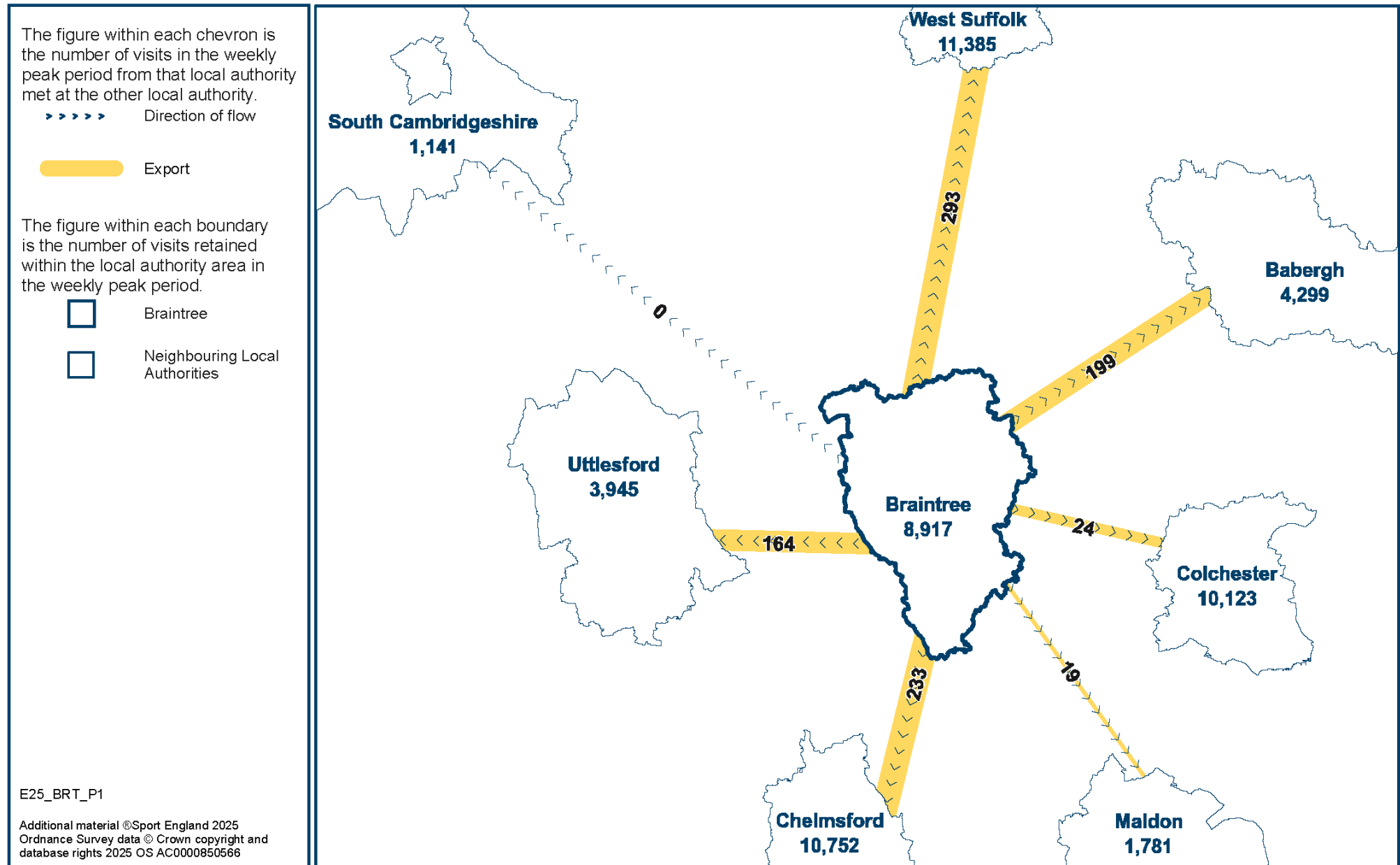
2041

- 5.9 Braintree's exported demand to four neighbouring local authorities decreases between 2025 and 2041. The largest decrease is to West Suffolk, at 130 visits. This still accounts for the largest amount of exported demand, at 293 visits in the weekly peak period and equating to 31% of Braintree's exported demand (see Map 5.2).
- 5.10 Exported demand to Chelmsford increases by 48 visits to 233 visits in the weekly peak period. It accounts for the second largest amount of Braintree's exported demand at 24%. There are housing growth sites in the southwest of Braintree, where residents will be able to access some of the swimming pools in Chelmsford. The closest swimming pool site to Braintree in Chelmsford is Riverside Leisure Centre, which is a modern site with a large capacity.
- 5.11 Demand exported to Babergh from Braintree equates to 21% and accounts for 199 visits in the weekly peak period.

Map 5.1: Export of Braintree Satisfied Demand for Swimming Pools in 2025 (Run 1)



Map 5.2: Export of Braintree Satisfied Demand for Swimming Pools in 2041 (Run 2)



6 UNMET DEMAND FOR SWIMMING POOLS

Of Braintree's demand for swimming pools, 5% is unmet in 2025 and 2041.

In 2025, 100% of this unmet demand is due to being too far from a facility, reducing to 95% in 2041.

Unmet demand is greatest in Braintree town at 4 sqm of water per square kilometre in both years. Across nine square kilometres in the town unmet demand totals 16 sqm of water in 2025, and 13 sqm of water in 2041.

Table 6.1: Unmet Demand for Swimming Pools in Braintree by Run

Unmet Demand	Run 1	Run 2
Braintree	2025	2041
Number of visits unmet per week in peak period	493	526
Unmet demand as a % of total demand	5%	5%
Equivalent in sqm of water with comfort factor	81	87
% of unmet demand due to:		
Facility too far away:	100%	95%
% without access to a car	79%	78%
% with access to a car	20%	18%
Lack of facility capacity:	0%	5%
% without access to a car	0%	3%
% with access to a car	0%	1%

Definition of unmet demand – This has two parts; demand for swimming pools that cannot be met because either:

1. There is too much demand for any particular swimming pool within its travel time area and there is a lack of capacity.
2. The demand is located too far from any swimming pool 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 7** is that 5% of Braintree's demand for swimming pools is unmet in both years, equating to 81 sqm of water in 2025 and 87 sqm of water in 2041. In 2025, 100% of this unmet demand is due to being too far from a facility, reducing to 95% in 2041. Unmet demand due to lack of capacity equates to 4 sqm of water in 2041.
- 6.2 Unmet demand that is too far from a swimming pool 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 swimming pool that is not commercial and not everyone will want, or is able, to drive the full distance.
- 6.3 The key point here is the scale of the unmet demand. Also, if it is clustered in one location, further provision should be considered to improve accessibility.

Location of Unmet Demand

2025

- 6.4 In 2025 the greatest density of unmet demand in Braintree is in Braintree town, at 4 sqm of water per square kilometre (dark green square in Map 6.1). This is the location of one of the areas of greatest deprivation in the District. Unmet demand in Braintree town totals 16 sqm of water across nine square kilometres.
- 6.5 Unmet demand across the rest of the District is less than 2 sqm of water per square kilometre (dark blue and purple squares).
- 6.6 There are clusters of unmet demand in the following areas:
- Witham – 4 sqm of water
 - Sible Hedingham – 3 sqm of water
 - Halstead – 3 sqm of water
 - Coggeshall – 3 sqm of water
 - Silver End – 3 sqm of water

2041

- 6.7 In 2041 the greatest density of unmet demand remains 4 sqm of water per square kilometre in Braintree town (dark green square in Map 6.2).
- 6.8 The largest changes in unmet demand are as follows:
- Braintree town – decreases by 3 sqm of water to 13 sqm of water
 - Witham – increases by 1 sqm of water to 5 sqm of water
 - Kelvedon – increases by 2 sqm of water to 4 sqm of water
 - South of Braintree town and Black Notley – increases by 2 sqm of water to 4 sqm of water
 - West of Braintree town – increases by 2 sqm of water to 2 sqm of water
 - Halstead – decreases by 2 sqm of water to 1 sqm of water
- 6.9 Unmet demand in the remainder of the District remains less than 2 sqm of water per square kilometre, but there are small increases in unmet demand at the locations of the housing growth sites (dark blue and purple squares).

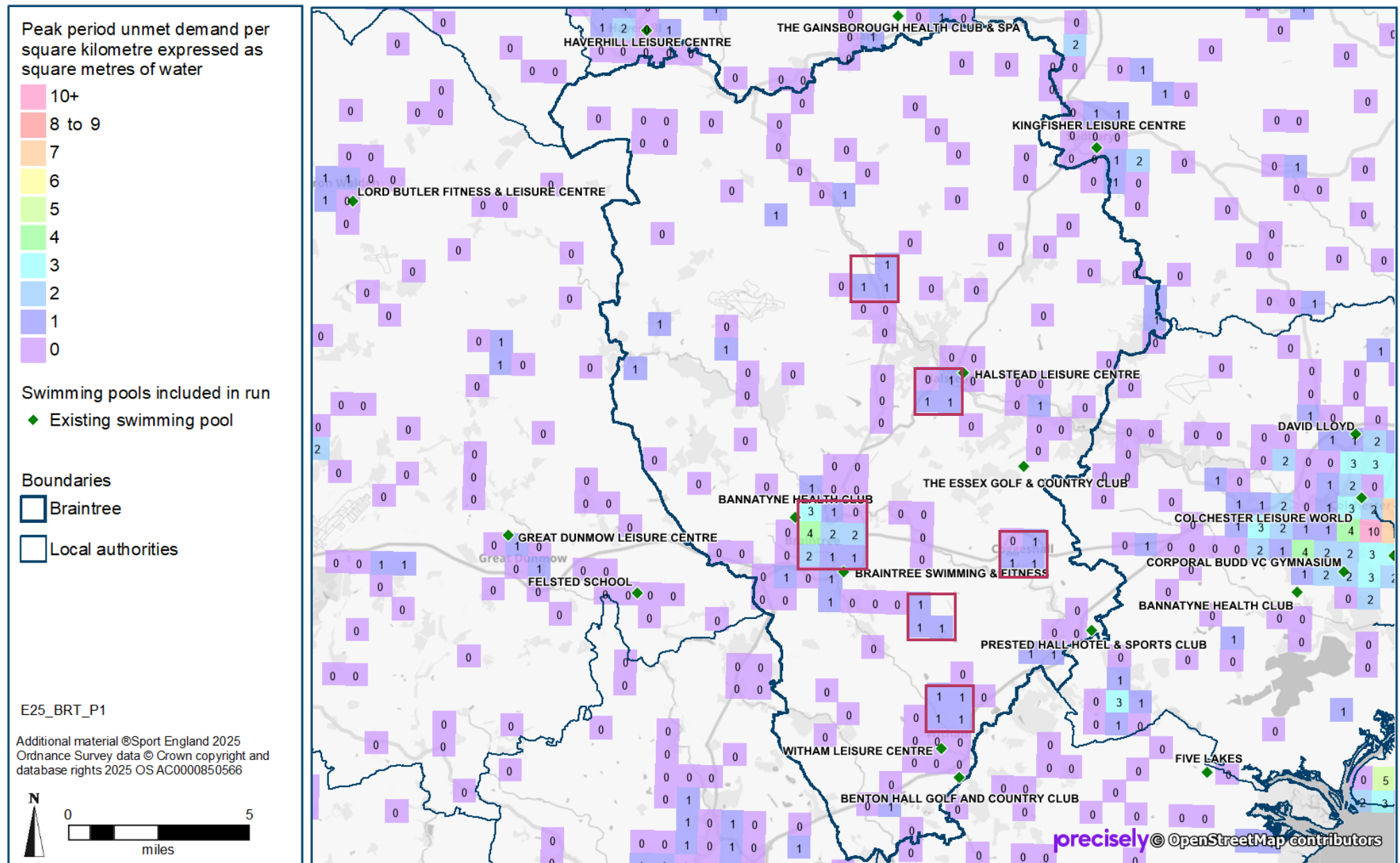
Meeting Unmet Demand

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

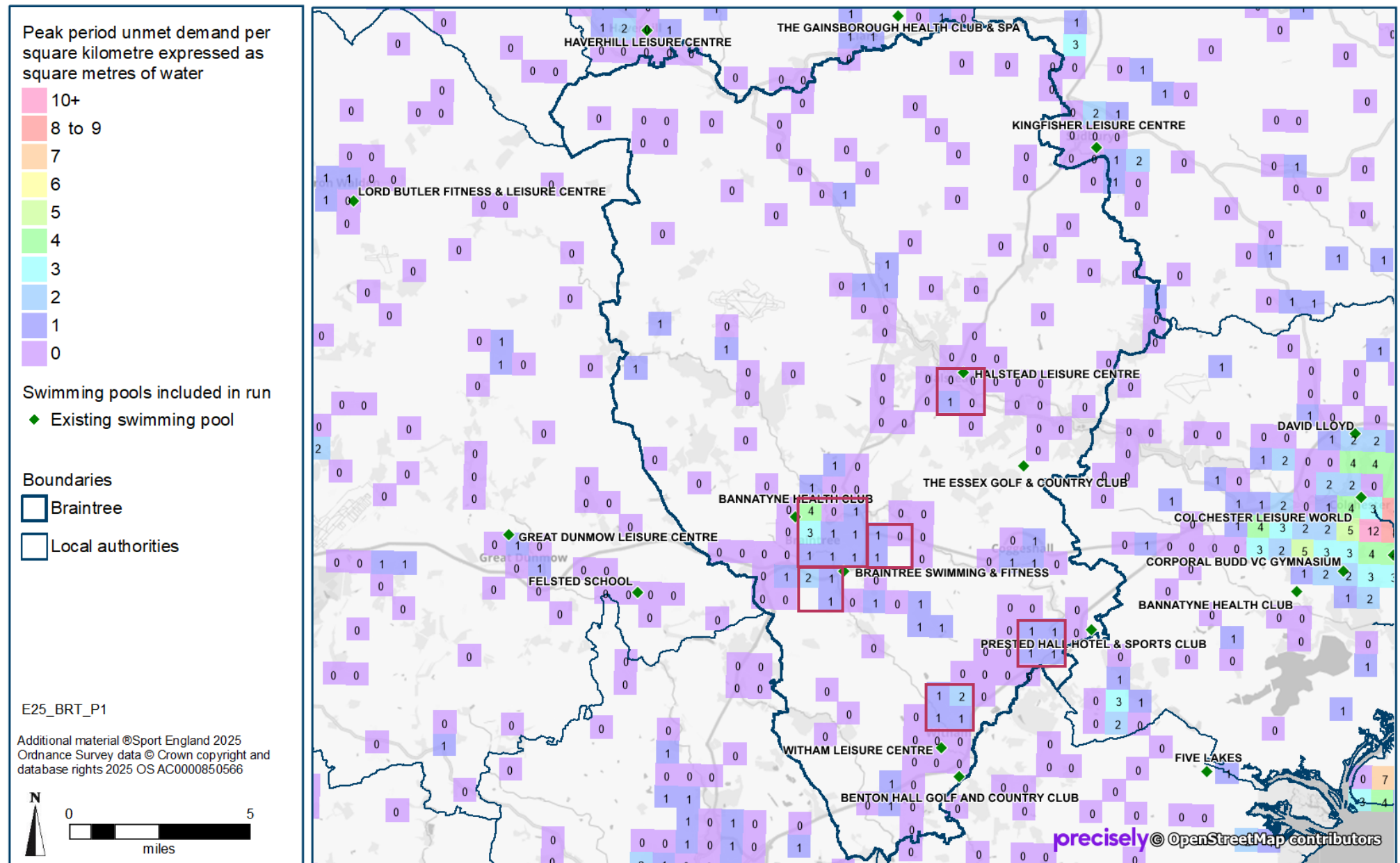
- 6.10 In 2041 the location in Braintree where the most unmet demand can be met is Feering at Junction 24 of the A12, and equates to 86 sqm of water (light green square in Map **6.3**). This is an insufficient amount to consider providing a new swimming pool. The A12 means that this location is highly accessible from Colchester, where unmet demand is higher.

For context, the minimum amount of reachable water space required to justify a new pool would be 120 sqm of water, which is a 15m x 8m Sport England Leisure Local facility.

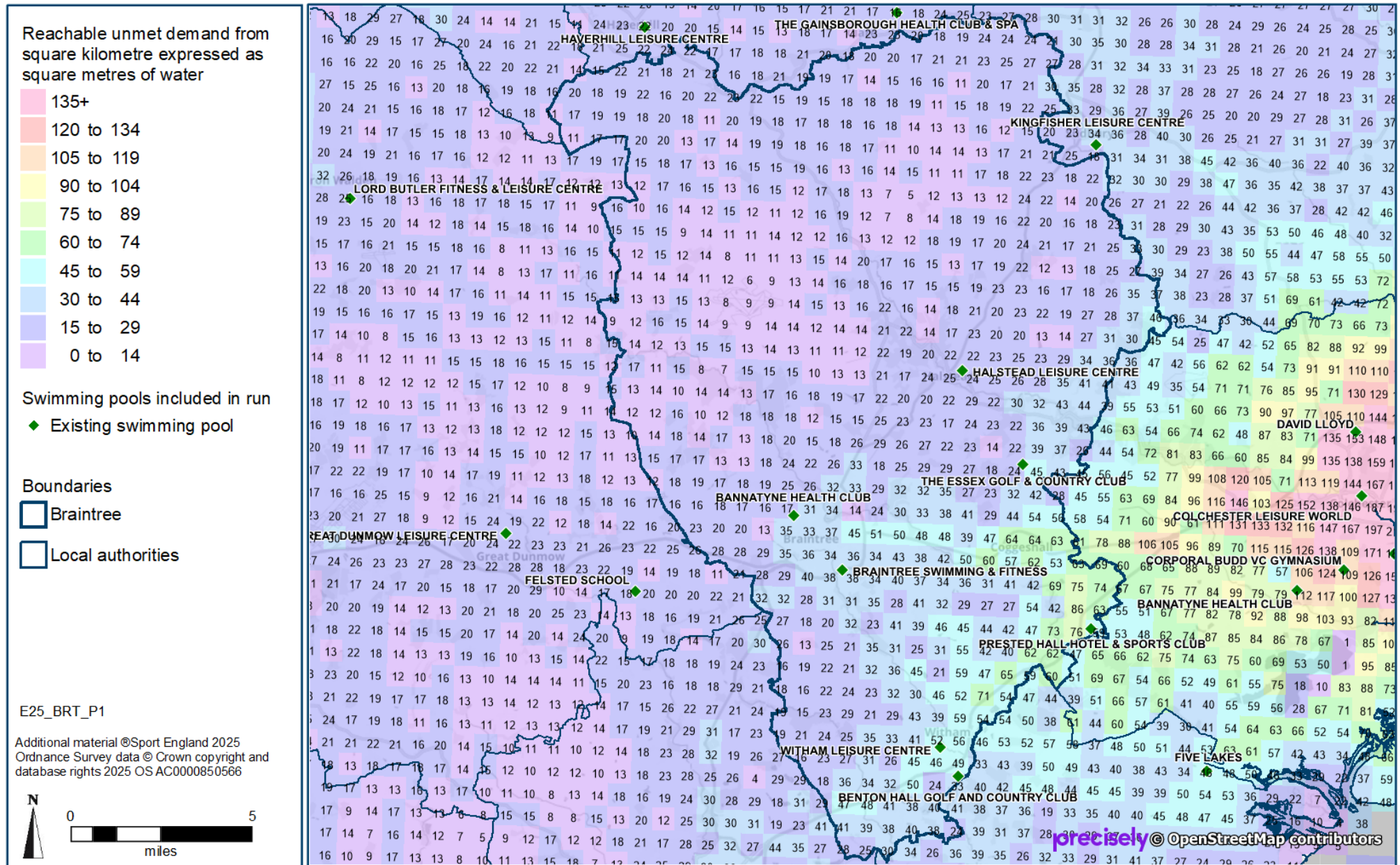
Map 6.1: Unmet Demand for Swimming Pools in 2025 (Run 1)



Map 6.2: Unmet Demand for Swimming Pools in 2041 (Run 2)



Map 6.3: Reachable Unmet Demand for Swimming Pools in 2041 (Run 2)



7 USED CAPACITY OF FACILITIES

The overall used capacity of Braintree's swimming pools is 70% at peak times in 2025, and 75% in 2041. However, the public leisure centres are estimated to be uncomfortably full (more than 70% of capacity used) in both years, with Witham Leisure Centre estimated to be 100% utilised in 2041.

Imported demand equates to 31% of the used capacity of Braintree's swimming pools at peak times in 2025, and 34% in 2041.

The largest amount of imported demand comes from Colchester in both 2025 and 2041.

Braintree is a net importer of demand in both years.

Table 7.1: Used Capacity of Swimming Pools in Braintree by Run

Used Capacity	Run 1	Run 2
Braintree	2025	2041
Number of visits used of capacity in weekly peak period	12,494	13,450
% of overall capacity of pools used	70%	75%

Definition of used capacity – This is a measure of usage at swimming pools and estimates how well used or full facilities are. The FPM is designed to include a 'comfort factor', beyond which the venues are too full. The pool itself becomes too crowded to swim comfortably, and the changing and circulation areas also become too congested. In the model, Sport England assumes that usage above 70% of capacity is busy and that the swimming pool is operating at an uncomfortable level.

- 7.1 The number of visits met at Braintree's swimming pools in the weekly peak period increases from 12,494 visits in 2025 to 13,450 visits in 2041, due to the increase in demand.
- 7.2 **Key finding 8** is that the overall used capacity of Braintree's swimming pools in the weekly peak period is 70% in 2025, and 75% in 2041. In 2025 all three public leisure centres are estimated to be uncomfortably full. In 2041 two public leisure centres are estimated to be uncomfortably full, and Witham Leisure Centre is estimated to be 100% utilised.

Table 7.2: Weekly Peak Period Used Capacity of Braintree Swimming Pools by Run

Used Capacity	2025 (Run 1)		2041 (Run 2)		Provider	Peak Hours	Year Built	Year Refurb
Individual Sites	Proportion	Visits	Proportion	Visits				
Braintree Swimming and Fitness	72%	4,082	75%	4,283	Public	52.5	2008	2017
Halstead Leisure Centre	90%	1,795	96%	1,926	Public	37.5	2004	
Witham Leisure Centre	98%	4,244	100%	4,323	Public	52.5	2014	
Bannatyne Health Club	51%	718	50%	701	Commercial	52.5	2003	2025
Benton Hall Golf and Country Club	38%	537	52%	735	Commercial	52.5	2006	
Prested Hall Hotel and Sports Club	44%	923	61%	1,289	Commercial	52.5	2002	
The Essex Golf and Country Club	19%	195	18%	193	Commercial	52.5	1991	

Highly Utilised Sites

- 7.3 The public leisure centres are estimated to meet the largest number of visits in Braintree because of their 'draw effect'. Braintree Swimming and Fitness and Witham Leisure Centre are estimated to meet a similar number of visits in both years, but because Braintree Swimming and Fitness has the largest capacity, it has a smaller proportion of capacity used. Both sites are highly attractive due to their age, and the refurbishment at Braintree Swimming and Fitness.
- 7.4 Halstead Leisure Centre has less competition for demand because it is the most northerly site in the District. It is the only public leisure centre with scope to increase availability and capacity in the weekly peak period to reduce the proportion of used capacity. If the availability of the main pool was increased to the maximum 52.5 hours in the weekly peak period, used capacity would be at a comfortable level in 2025 but still uncomfortable in 2041.

Site Utilisation Factors

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

Type of site operator (public/commercial)

- Public leisure centres have a 'draw effect' because they:
 - Are accessible for public and swimming club use
 - Have extensive opening hours and are proactively managed to encourage and support swimming participation and physical activity
 - Unlike commercial swimming pools, do not require payment of a monthly membership fee
 - Provide all activities
- Commercial swimming pools provide recreational swimming through membership and some operate a learn to swim school. These centres are not available for public pay-and-swim or for club development. Therefore, they offer a more limited programme of use than public leisure centres and are less utilised.

Age of the pool and its 'attractiveness'

- To assess their comparative attractiveness to customers, all swimming pools in the model are weighted to reflect their age and whether they have been modernised.
- 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.

Location of demand and competition from other sites

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

Capacity

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

Imported demand

- If residents in other local authority areas participate at a site in Braintree, their usage becomes part of the used capacity of Braintree's swimming pools.

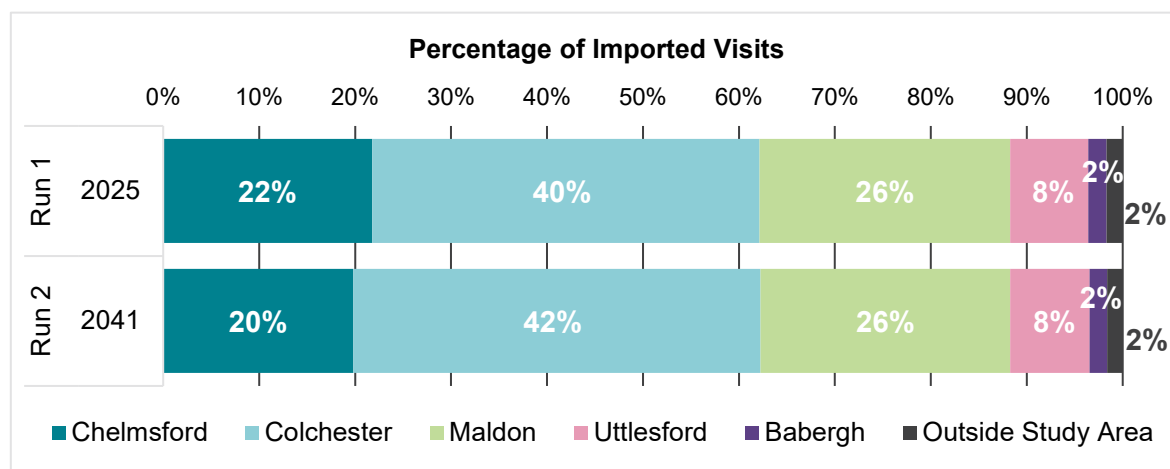
Imported Demand

Table 7.3: Imported Demand for Swimming Pools in Braintree by Run

Imported Demand	Run 1	Run 2
Braintree	2025	2041
Number of visits imported per week in peak period	3,883	4,533
As a % of used capacity	31%	34%
Difference between visits imported and exported	2,762	3,577

- 7.6 Imported demand to Braintree's swimming pools increases from 3,883 visits in the weekly peak period in 2025 to 4,533 visits in 2041. This equates to 31% of the used capacity of Braintree's swimming pools at peak times in 2025, and 34% in 2041.
- 7.7 Braintree is a net importer of visits to swimming pools, importing 2,762 more visits in the weekly peak period than it exports in 2025, and 3,577 more visits in 2041. The average attractiveness of Braintree's swimming pools is higher than the neighbouring local authorities.

Chart 7.1: Percentage of Imported Visits by Origin and Run



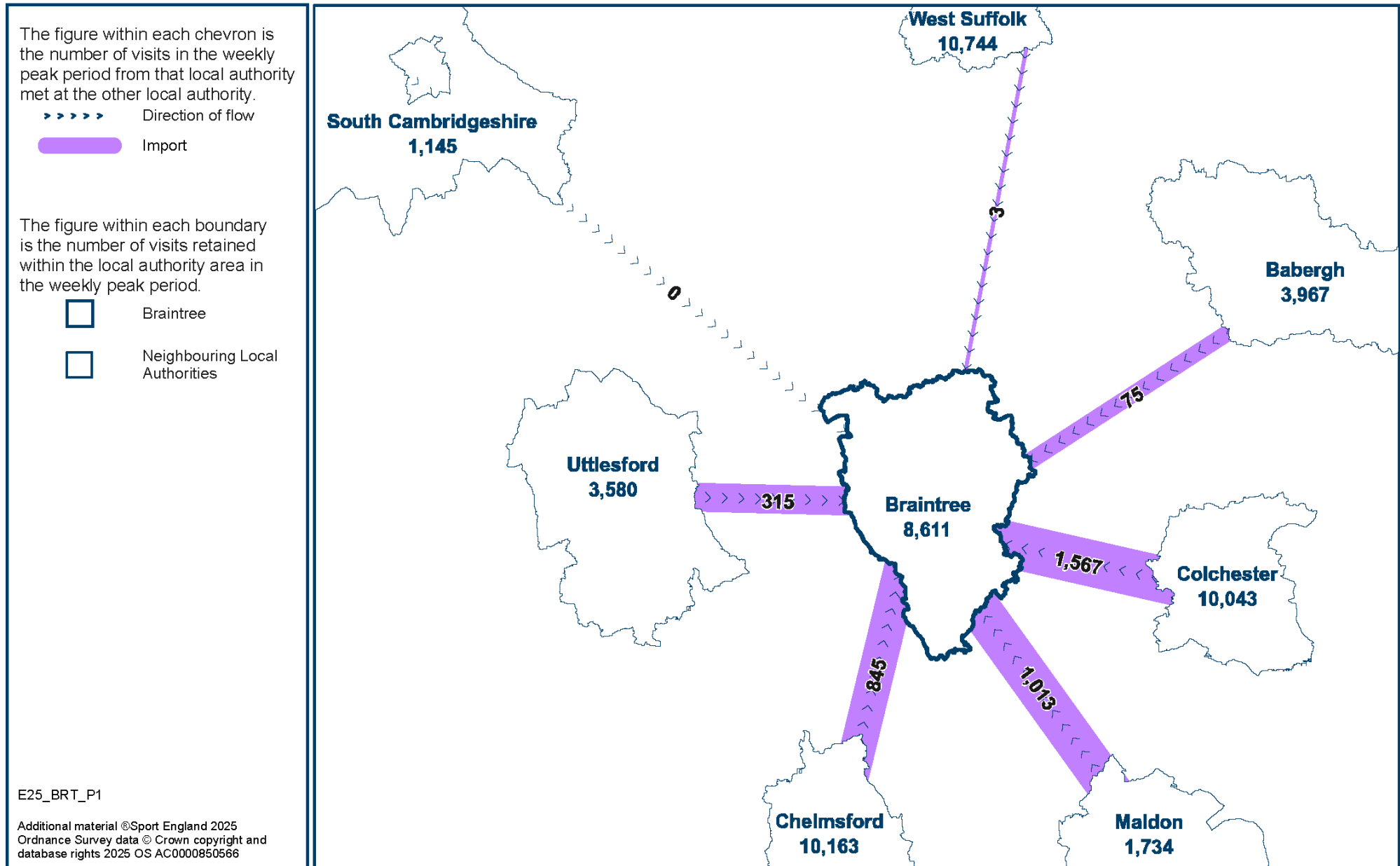
2025

- 7.8 In 2025 the largest amount of imported demand comes from Colchester, equating to 40% of Braintree's imported demand in 2025 and accounting for 1,567 visits in the weekly peak period (see Map 7.1). Demand in the west of Colchester, along the border with Braintree, is closer to swimming pools in Braintree than Colchester. Colchester has the greatest demand in the study area. The A120 gives Colchester residents access to the swimming pools in Braintree town, while the A12 provides access to Witham Leisure Centre and the A1124 provides access to Halstead Leisure Centre.
- 7.9 The second largest amount of imported demand is from Maldon, equating to 26% of Braintree's imported demand and accounting for 1,013 visits in the weekly peak period. Witham Leisure Centre is located close to the border with Maldon, and is more attractive and larger than the two swimming pools in Maldon.
- 7.10 There is no demand imported from South Cambridgeshire.

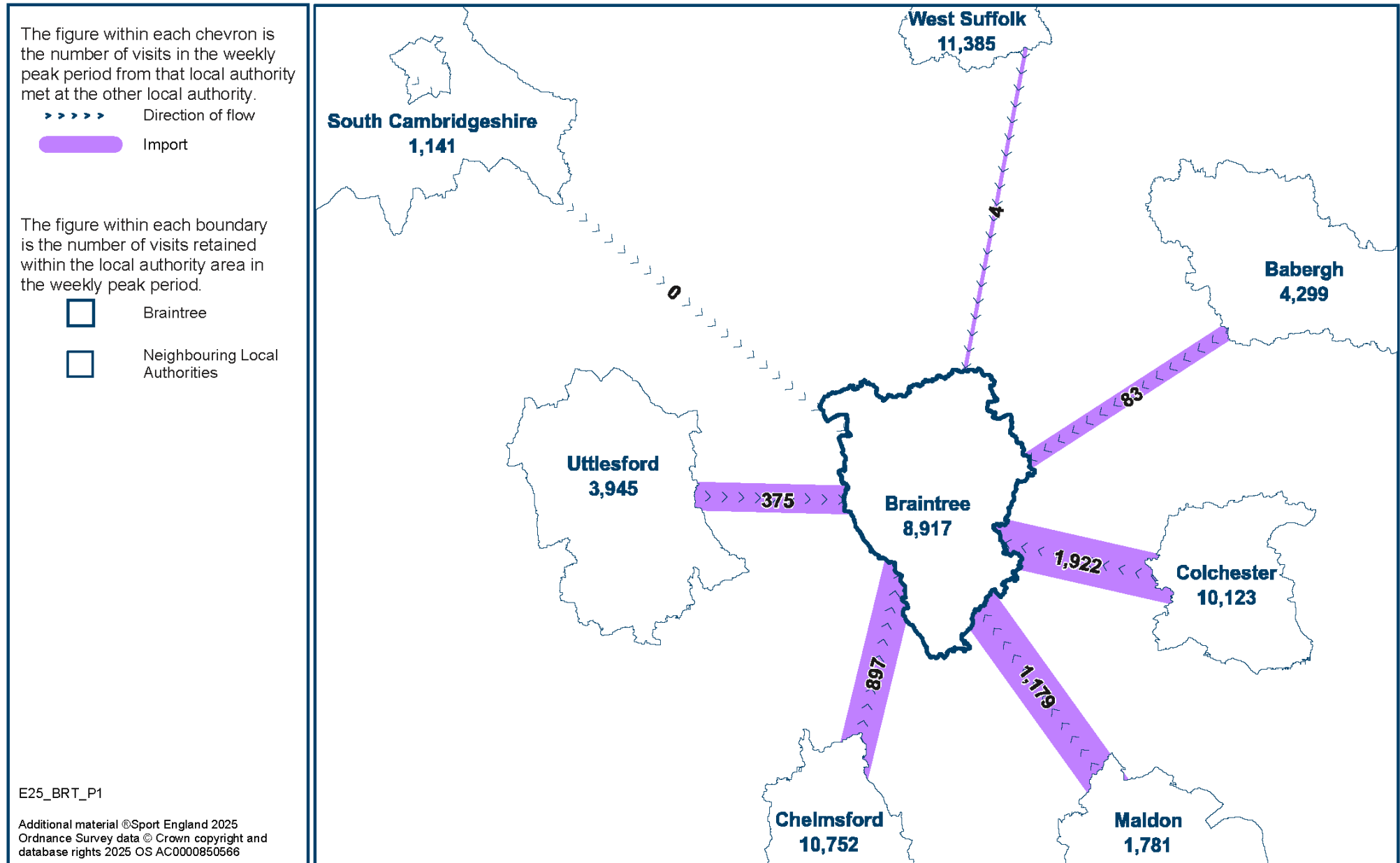
2041

- 7.11 With the exception of South Cambridgeshire, imported demand increases from all the neighbouring local authorities between 2025 and 2041. All the neighbouring local authorities have greater increases in demand than Braintree.
- 7.12 Imported demand from Colchester increases the most to 1,922 visits in the weekly peak period, which equates to 42% of Braintree's imported demand in 2041 (see Map 7.2).
- 7.13 The proportion of imported demand from Maldon is unchanged at 26%, but the number of visits imported in the weekly peak period increases to 1,179.

Map 7.1: Imported Demand for Swimming Pools to Braintree in 2025 (Run 1)



Map 7.2: Imported Demand for Swimming Pools to Braintree in 2041 (Run 2)



8 LOCAL SHARE OF FACILITIES

Local share is good across Braintree in 2025. The ageing of the swimming pools and the increase in demand mean that local share is poor in nearly all areas of the District in 2041.

Braintree's provision of water space per 1,000 population is above both the regional and national averages in 2025 and 2041, and is the third highest in the study area in both years.

Table 8.1: Local Share of Swimming Pools in Braintree by Run

Local Share	Run 1	Run 2
Braintree	2025	2041
Local share of swimming pools relative to demand in local area: <1 = poorer, >1 = better	1.22	0.70

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

- 8.1 Local share shows how access to, and the share of, swimming pools 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 swimming pools is better and worse. The intervention is to try and increase access for residents in the areas with the poorest access to swimming pools.

Geographical Distribution of Local Share

2025

- 8.3 In 2025 local share in Braintree is very good at 1.22, meaning that there is sufficient suitable provision that its demand can access based on the age, used capacity and operation of the swimming pools. Local share is greater than 1 across most of the District (see Map 8.1).
- 8.4 Local share is poorest in the northeast and northwest of the District at 0.8 and 0.9 (light green squares). There are no swimming pools in these areas and residents have access to the fewest sites. Kingfisher Leisure Centre in Babergh is the closest site to demand in the northeast of Braintree, but the site is ageing (opened in 1987 and was refurbished in 2004).

Haverhill Leisure Centre in West Suffolk is the closest swimming pool for demand in the northwest of Braintree, but it is estimated to be uncomfortably full in the peak period.

- 8.5 Local share is best south of Earls Colne at 2.3 (purple square). Local share is also very good in Feering, Coggeshall and Pentlow at 1.8 and 1.9 (purple squares). In all these areas demand and deprivation are lower; therefore, residents can access the commercial swimming pools that are close by and under-utilised.

2041

- 8.6 In 2041 local share in Braintree decreases to 0.70. This is because demand has increased to 2041, and the facilities have aged and become less attractive. Braintree residents are unable to access enough suitable provision.
- 8.7 Earls Colne is the only area of the District with local share greater than 1, at 1.3 (light blue square in Map 8.2). Local share in Coggeshall and Pentlow has decreased to 1.0 (dark green squares). These are the only areas in the District where demand is able to reach sufficient suitable provision.
- 8.8 Local share is poorest at 0.4 in the northwest of the District around Steeple Bumpstead, and in the northeast, in Bulmer close to the border with Babergh (orange squares).

Comparative Measure of Provision

- 8.9 A comparative measure of swimming pool provision is total water space per 1,000 population.

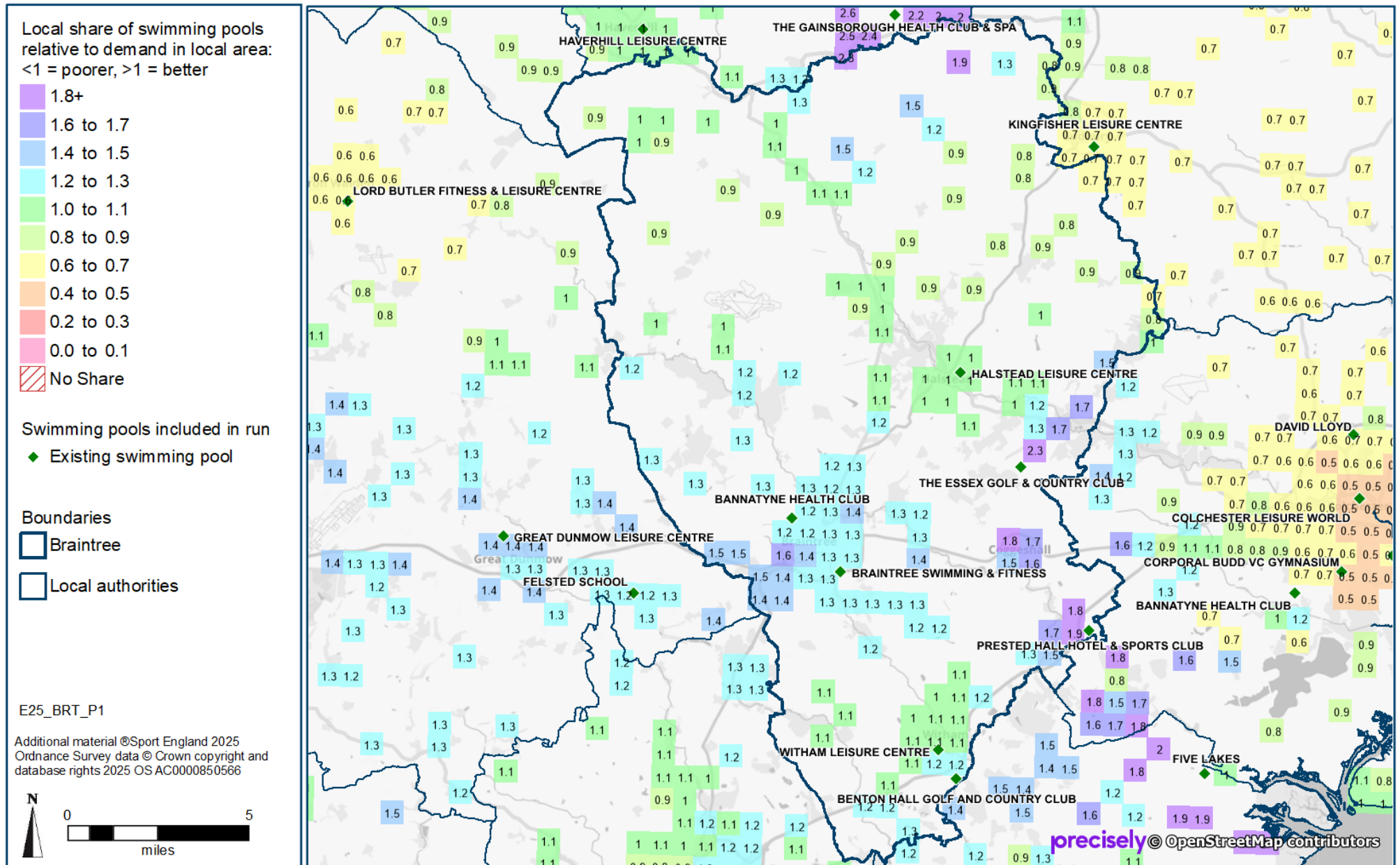
Table 8.2: Water Space in sqm per 1,000 Population by Area and Run

Sqm of water per 1,000 population	Run 1	Run 2
Area	2025	2041
Braintree	14	13
South Cambridgeshire	1	1
Chelmsford	12	11
Colchester	9	8
Maldon	6	6
Uttlesford	9	8
Babergh	19	17
West Suffolk	18	16
East Region	12	11
England	11	11

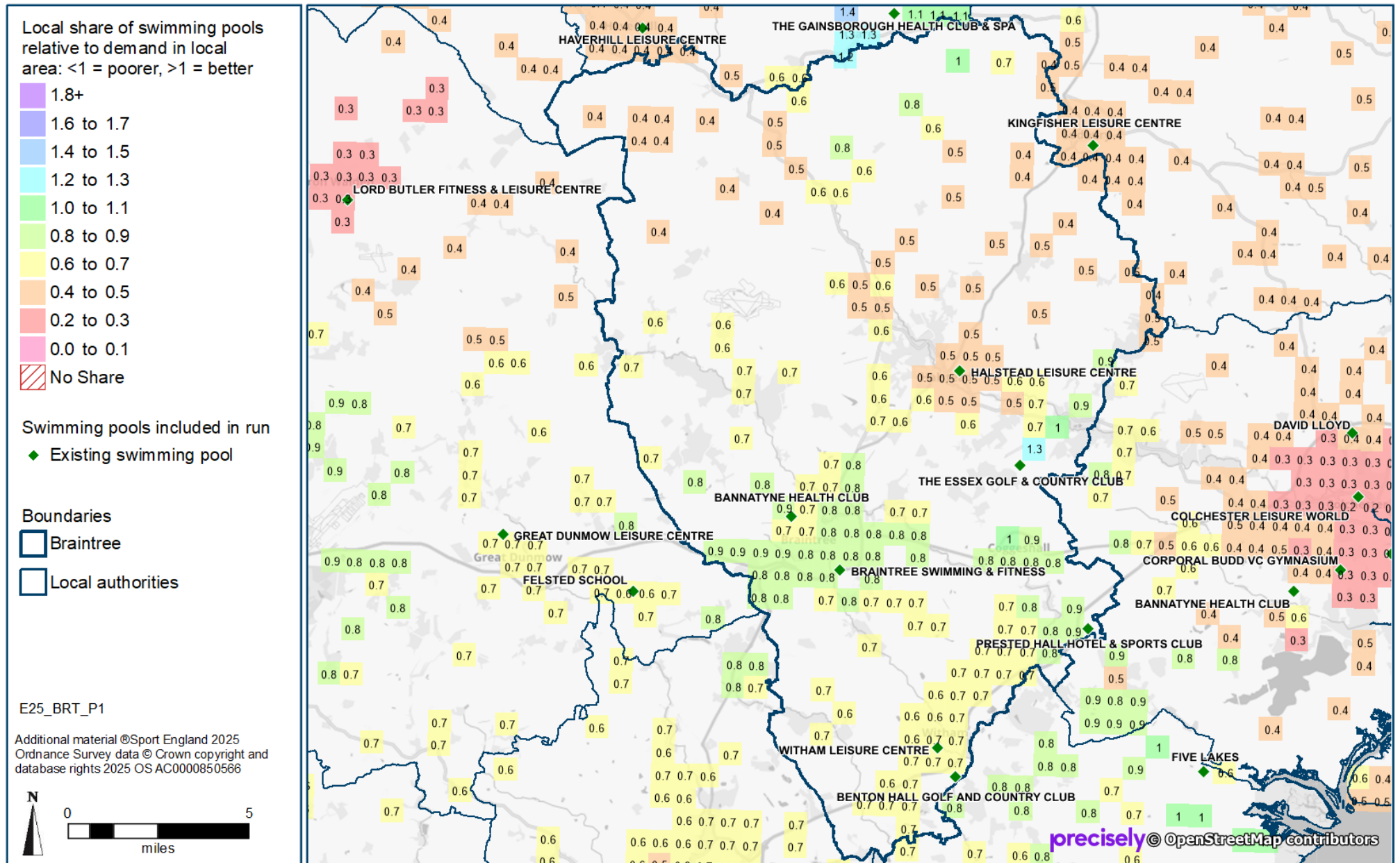
- 8.10 Braintree has 14 sqm of water per 1,000 population in 2025. This decreases to 13 sqm of water in 2041 because the population increases and the supply is unchanged.

- 8.11 Braintree's provision is above both the regional and national averages in 2025 and 2041. The regional average is 12 sqm of water per 1,000 population in 2025, decreasing to 11 sqm of water in 2041. The national average is 11 sqm of water per 1,000 population in both years.
- 8.12 Babergh has the best provision in the study area at 19 sqm of water per 1,000 population in 2025, and 17 sqm of water in 2041.
- 8.13 South Cambridgeshire has the poorest provision at 1 sqm of water per 1,000 population in both 2025 and 2041. South Cambridgeshire only has one swimming pool in both years.
- 8.14 **The findings on water space per 1,000 population are reported because some local authorities like to compare their quantitative provision with others; however, it does not set a standard of provision, and should not be used as such.**
- 8.15 The supply and demand assessment for swimming pools in the Braintree is based on the findings from the previous six headings analysed in this report.

Map 8.1: Local Share of Swimming Pools in 2025 (Run 1)



Map 8.2: Local Share of Swimming Pools in 2041 (Run 2)



APPENDIX 1: FACILITIES EXCLUDED

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

Site	Facility Type	Reason for Exclusion
Black Notley Community Association	Lido	Principal pool too small
Bramston Sports Centre	Main	Closed
	Leisure Pool	Closed
	Learner	Closed
Great Bardfield Primary School	Lido	Principal pool too small
Hi-Life Health Centre	Learner	Closed
Kelvedon St Mary's CE Primary Academy	Main	Private use
Kilowen Health and Fitness Club	Learner	Closed
Riverside Swimming Pool	Main	Closed
	Learner	Closed
Silver End Academy	Lido	Private use
Steeple Bumpstead Primary School	Lido	Private use
White's Farm Pool	Learner	Principal pool too small

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

Site	Provider	Facility Type	Dimensions (m)	Area (sqm)	Year Built	Year Refurb
South Cambridgeshire						
Impington Village College and Sports Centre	Educational (in-house)	4-lane	25 x 10	250	1995	
Chelmsford						
Chelmsford County High School for Girls	Educational (in-house)	4-lane	18 x 10	180	1980	2010
Great Baddow High School	Educational (in-house)	4-lane	18 x 9	162	1972	
Greenwood Estate Health Spa and Retreat	Commercial	4-lane	20 x 10	200	2002	
Moulsham High School	Educational (in-house)	4-lane	20 x 10	200	1985	2000
Nuffield Health	Commercial	4-lane	20 x 10	200	1999	
		Teaching	10 x 5	50		
Riverside Leisure Centre	Public	9-lane	25 x 20	500	2019	
		Teaching	10 x 9	90		
South Woodham Ferrers Leisure Centre	Public	6-lane	25 x 13	325	2005	2025
Virgin Active	Commercial	7-lane	20 x 15	300	2001	2015
		Teaching	5 x 5	25		
Colchester						
Bannatyne Health Club (Kingsford Park)	Commercial	4-lane	20 x 8	160	2006	
Bannatyne Health Club (Colchester)	Commercial	4-lane	20 x 8	160	2004	
Colchester Leisure World	Public	6-lane	25 x 12.5	313	1991	2009
		Leisure	25 x 10	250		
		Teaching	12 x 12	144		
		Diving	12.5 x 8	100		
Corporal Budd VC Gymnasium	Other (sport club)	8-lane	25 x 17.5	438	2008	
David Lloyd	Commercial	4-lane	20 x 10	200	2016	
Maldon						
Blackwater Leisure Centre	Public	Leisure	25 x 10	250	1991	2016
Five Lakes (Potters Resorts)	Commercial	Leisure	15 x 13.3	200	1995	
Uttlesford						
Felsted School	Educational (in-house)	4-lane	23 x 8	184	1983	2021
Great Dunmow Leisure Centre	Other (pay & play)	6-lane	25 x 13	325	2003	
Lord Butler Fitness and Leisure Centre	Public	5-lane	25 x 11	275	1984	2004
		Teaching	12 x 10	120		

Babergh						
Hadleigh Pool and Leisure	Public	6-lane	25 x 13	325	2020	
Ipswich High School	Educational (in-house)	5-lane	25 x 12	300	2002	
Kingfisher Leisure Centre	Public	Leisure	25 x 20	500	1987	2004
Royal Hospital School Holbrook	Educational (in-house)	6-lane	38.1 x 13.7	522	1933	2004
The Bridge School	Educational (in-house)	4-lane	20 x 8.5	170	2010	2015
West Suffolk						
Bannatyne Health Club	Commercial	4-lane	20 x 8	160	2001	
Bury St Edmunds Leisure Centre	Public	6-lane	25 x 12.5	313	1975 2006	
		3-lane	20 x 7	140		
		Leisure	13 x 8	104		
		Teaching	20 x 8	160		
Culford Sports and Tennis Centre	Educational (in-house)	6-lane	25 x 13	325	1992	
David Lloyd	Commercial	4-lane	25 x 10	250	2024	
Haverhill Leisure Centre	Public	5-lane	25 x 12	300	1971 2025	
		Teaching	13 x 10	130		
Mildenhall Hub	Public	6-lane	25 x 13	325	2021	
		Teaching	20 x 8	160		
Newmarket Leisure Centre	Educational (3rd party)	6-lane	25 x 13	325	2009	
		Teaching	12 x 7	84		
RAF Honington	Other (sport club)	7-lane	25 x 15	375	1965	2015
The Gainsborough Health Club and Spa	Commercial	4-lane	20 x 9	180	2007	2018

APPENDIX 3: MODEL DESCRIPTION, INCLUSION CRITERIA AND MODEL PARAMETERS

Included within this Appendix are the following:

- Model Description
- Facility Inclusion Criteria
- Model Parameters

Model Description

1 Background

- 1.1 The Facilities Planning Model (FPM) is a computer-based supply/demand model, which has been developed by Edinburgh University in conjunction with **sportscotland** and Sport England since the 1980s.
- 1.2 The model is a tool for helping to assess the strategic provision of community sports facilities in an area. It is currently applicable for use in assessing the provision of the following facilities that Sport England holds substantial demand data for:
 - sports halls
 - swimming pools
 - indoor bowls centres
 - artificial grass pitches (AGPs)

2 Use of FPM

- 2.1 The FPM is one of Sport England's principal tools and has been developed as a means for:
 - Assessing the requirements for different types of community sports facilities on a local, regional and national scale.
 - Helping local authorities to determine an adequate level of sports facility provision to meet their local needs.
 - Helping to identify strategic gaps in the provision of sports facilities.
 - Comparing alternative options for planned provision, taking account of changes in demand and supply. This includes testing the impact of opening, relocating and closing facilities, and the likely impact of population changes on the need for sports facilities.
- 2.2 The FPM has been used in the assessment of Lottery funding bids for community facilities and as a principal planning tool to assist local authorities in planning for the provision of community sports facilities.

3 How the Model Works

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

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

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

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

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

4 Calculating Demand

- 4.1 Demand is calculated by applying the user information from the parameters, as referred to above, to the population¹. This produces the number of visits for that facility that will be demanded by the population.
- 4.2 Depending on the age and gender composition of the population, this will affect the number of visits an area will generate. In order to reflect the different population profiles of the country, the FPM calculates demand based on the smallest census groupings. These are output areas (OAs)².
- 4.3 The use of OAs in the calculation of demand ensures that the FPM is able to reflect and portray differences in demand in areas at the most sensitive level based on available census

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

² Census OAs are the smallest grouping of census population data and provide the population information on which the FPM's demand parameters are applied. A demand figure can then be calculated for each OA based on the population profile. There are over 178,600 OAs in England. An OA has a target value of 125 households per OA.

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

5 Calculating Supply Capacity

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

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

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

5.3 Based on travel time information (see Travel Time section) taken from the user surveys, the FPM then calculates how much demand would be met by the facility, having regard to its capacity and how much demand can travel to the facility. The FPM includes an important feature of spatial interaction. This feature takes account of the location and capacity of all the facilities, having regard to their access and the size of demand, and assesses whether the facilities are in the right place to meet the demand.

5.4 It is important to note that the FPM does not simply add up the total demand within an area and compare that to the total supply within the same area. This approach would not take account of the spatial aspect of supply against demand in a particular area. For example, if an area has a total demand for five facilities and there are currently six facilities within the area, it would be too simplistic to conclude that there is an over-supply of one facility as this approach would not take account of whether the five facilities are in the correct location for local people to use them within that area. It may be that all the facilities are in one part of the local authority area, leaving other areas under-provided. An assessment of this kind would not reflect the true picture of provision. The FPM is able to assess supply and demand within an area based on the needs of the population within that area.

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

6 Calculating the Capacity of Sports Halls – Badminton Court Equivalents

6.1 The capacity of sports halls is calculated in the same way as described above, with each sports hall site having a capacity in visits in the weekly peak period. In order for this capacity to be meaningful, these visits are converted into the equivalent of main hall badminton

courts. This 'court' figure is often mistakenly read as being the same as the number of 'marked courts' at the sports halls in the Active Places data, but it is not the same. There will usually be a difference between this figure and the number of 'marked courts' in Active Places.

6.2 The reason for this is that the badminton court equivalents are of all the main and activity halls' capacities; this is calculated based on hall size (area) and whether it is a main hall or an activity hall. This gives a more accurate reflection of the overall capacity of the halls than simply using the 'marked courts' figure, for two reasons:

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

7 Facility Attractiveness – for Halls and Pools Only

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

7.2 Attractiveness weightings are based on the following:

- Age and refurbishment weighting (pools and halls): The older a facility is, the less attractive it will be to users. It is recognised that this is a general assumption and that there may be examples where older facilities are more attractive than newly built ones due to excellent local management, programming and sports development. Additionally, the date of any significant refurbishment is also included within the weighting factor; however, here attractiveness is set lower than a new build of the same year. It is assumed that a refurbishment that is older than 20 years will have a minimal impact on the facility's attractiveness. The information on year built/refurbished is taken from Active Places. A graduated curve is used to allocate the attractiveness weighting by year. This curve levels off at 70 years old with a 20% weighting. The refurbishment weighting is slightly lower than the new built year equivalent.
- Management and ownership weighting (halls only): Due to the large number of halls being provided by the education sector, an assumption is made that these halls will generally not provide as balanced a programme as halls run by local authorities, trusts, etc, with school halls more likely to be used by teams and groups through block booking. A less balanced programme is assumed to be less attractive to a general

pay-and-play user than a standard local authority leisure centre sports hall with a wider range of activities on offer.

7.3 To reflect this, two weighting curves are used:

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

7.4 Commercial facilities (halls and pools): While there are relatively few sports halls provided by the commercial sector, an additional weighting factor is incorporated within the model to reflect the cost element often associated with commercial facilities. For each population OA, the Indices of Multiple Deprivation (IMD) score is used to limit whether people will use commercial facilities. The assumption is that the higher the IMD score (less affluence), the less likely the population of the OA would choose to go to a commercial facility.

7.5 The English Indices of Deprivation 2019, produced by the Ministry of Housing, Communities and Local Government, measure relative levels of deprivation in 32,844 lower super output areas in England. IMD is an overall relative measure of deprivation constructed by combining seven domains of deprivation according to their relative weights.

8 Used Capacity

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

8.2 For example, a 25m four-lane pool has a theoretical capacity of 2,260 visits per week during a 52.5-hour peak period. Usage of a pool will vary throughout the evening, with some sessions being busier than others through programming, such as an aqua aerobics session between 19:00 and 20:00 and lane swimming between 20:00 and 21:00 (see table below). Other sessions will be quieter, such as between 21:00 and 22:00. This pattern of use would mean a total of 143 swims taking place. However, the pool's maximum theoretical capacity is 264 visits throughout the evening. In this instance the pool's used capacity for the evening would be 54%.

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

9 Comfort Factor – Halls and Pools

- 9.1 If the facilities were full to their theoretical capacity, there would simply not be the space to undertake the activity comfortably. In addition, there is a need to take account of a range of activities taking place which have different numbers of users; for example, aqua aerobics will have significantly more participants than lane swimming sessions. Additionally, there may be times and sessions that, while being within the peak period, are less busy and so will have fewer users.
- 9.2 To account for these factors the notion of a 'comfort factor' is applied within the model. For swimming pools, 70%, and for sports halls, 80%, of their theoretical capacity is considered as indicating where a facility starts to become uncomfortably busy. This should be seen only as a guide to help flag when facilities are becoming busier, rather than as a 'hard threshold'.
- 9.3 The comfort factor is also used to increase the capacity needed to comfortably meet unmet demand. If this comfort factor is not applied, then any facilities provided will be operating at their maximum theoretical capacity, which is not desirable as previously noted.
- 9.4 The comfort factor is not applied to AGPs due to the fact they are predominantly used by teams that have a set number of players, therefore, the notion of having a 'less busy' pitch is not applicable.

10 Travel Times

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

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

- 10.4 The model includes a distance decay function where the further a user is from a facility, the less likely they will travel. Set out below is the survey data with the percentage of visits made

within each of the travel times. This shows that almost 90% of all visits, both by car and on foot, are made within 20 minutes. Hence, 20 minutes is often used as a rule of thumb for the coverage for sports halls and swimming pools.

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

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

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

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

- 10.6 Ordnance Survey's Multi-Modal Network Roads average speed data is used to calculate the off-peak drive times between facilities and the population, observing any one-way and turn restrictions that apply. These travel times have been validated against national survey work, and therefore are based on the actual travel patterns of users.
- 10.7 The network is also used to calculate walk times along paths and roads, excluding motorways and trunk roads. A standard walking speed of 3 mph is used for all journeys.
- 10.8 Due to the complexity of public transport timetables, public transport travel times in the model are assumed to be twice as long as driving times.
- 10.9 A cycling speed of 12 mph is used for roads and shared use cycleways, which is approximately half the average speed of driving in urban areas. A speed of 7.5 mph is used for tracks and off-road travel.

Facility Inclusion Criteria

Swimming Pools

The following inclusion criteria were used for this analysis:

- Include all operational indoor pools available for community use ie, pay-and-play, membership, sports club/community association.
- Exclude all pools not available for community use, ie, private use.
- Exclude all outdoor pools, ie, lidos.
- Exclude all pools where the main pool is less than 20 metres in length, or the area is less than 160 square metres. If the principal pool is a leisure pool with an area less than 200 square metres, then all pools on the site should be excluded.
- For leisure pools, only the area of the water that is swimmable should be included. Water play or splash areas should be excluded from the useable space.
- Include all 'planned', 'under construction', and 'temporarily closed' facilities only where all data is available for inclusion.
- Where opening times are missing, availability is included based on similar facility types.
- Where the year built is missing, assume date 1975³.

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

osing a date in the mid-1970s ensures that the facility is included, while not overestimating its impact within the run.

Model Parameters

Swimming Pools Parameters

At-one-time Capacity	0.16667 per square metre = 1 person per 6 square meters																											
Coverage Maps	Car: 20 minutes Walking: 1.6 km Public transport: 20 minutes at about half the speed of a car NOTE: Travel times are indicative, within the context of a distance decay function of the model.																											
Duration	60 minutes																											
Percentage Participation	<table><tr><td>Age</td><td>0-15</td><td>16-24</td><td>25-39</td><td>40-59</td><td>60-79</td><td>80+</td></tr><tr><td>Male</td><td>15.6%</td><td>7.6%</td><td>10.9%</td><td>9.9%</td><td>6.7%</td><td>2.3%</td></tr><tr><td>Female</td><td>17.5%</td><td>9.2%</td><td>12.7%</td><td>11.7%</td><td>9.2%</td><td>3.0%</td></tr></table>							Age	0-15	16-24	25-39	40-59	60-79	80+	Male	15.6%	7.6%	10.9%	9.9%	6.7%	2.3%	Female	17.5%	9.2%	12.7%	11.7%	9.2%	3.0%
Age	0-15	16-24	25-39	40-59	60-79	80+																						
Male	15.6%	7.6%	10.9%	9.9%	6.7%	2.3%																						
Female	17.5%	9.2%	12.7%	11.7%	9.2%	3.0%																						
Frequency per Week	<table><tr><td>Age</td><td>0-15</td><td>16-24</td><td>25-39</td><td>40-59</td><td>60-79</td><td>80+</td></tr><tr><td>Male</td><td>1.07</td><td>0.91</td><td>0.77</td><td>0.92</td><td>1.21</td><td>1.54</td></tr><tr><td>Female</td><td>1.09</td><td>0.94</td><td>0.75</td><td>0.92</td><td>1.16</td><td>1.27</td></tr></table>							Age	0-15	16-24	25-39	40-59	60-79	80+	Male	1.07	0.91	0.77	0.92	1.21	1.54	Female	1.09	0.94	0.75	0.92	1.16	1.27
Age	0-15	16-24	25-39	40-59	60-79	80+																						
Male	1.07	0.91	0.77	0.92	1.21	1.54																						
Female	1.09	0.94	0.75	0.92	1.16	1.27																						
Peak Period	Weekday: 9:00 to 10:00, 12:00 to 13:00, 15:30 to 21:00 Weekend: 08:00 to 15:30 Total: 52.5 hours																											
Proportion in Peak Period	63%																											

Executive Summary of Sport England Facilities Planning Model: Swimming Pool Provisions 2026-2041

Key findings

The Council operates three public Leisure swimming pools that provide 67% of available swimming capacity in the district, with the remaining 33% delivered by private providers.

The evidence indicates there is no requirement for additional swimming pool water space providing the Council maintains the quality, attractiveness and operational capacity of existing public Leisure Centres.

There is no evidence-based requirement for additional swimming pools to meet future demand up until 2041 and the Council should focus on asset development rather than asset expansion.

Aging Facilities

By 2041 the Council's public leisure centres with swimming pools will average 33 years old, with Halstead being the oldest:

Facility	Opened	Age in 2041
Halstead Leisure Centre	2004	39 years
Braintree Swimming & Fitness	2008	35 years
Witham Leisure Centre	2014	29 years

Braintree swimming pool was built in 2008, however, the centre is regarded as needing the most investment both in maintenance and aesthetic developments. Furthermore, the Council will need to make a decision on the 25-year lease which comes to an end 2033.

District-Wide Imported Demand

The district is a **net importer** of swimming demand, and this position strengthens over time.

Measure	2025	2041
Imported visits per week (peak period)	3,883	4,533
Imported demand as % of used capacity	31%	34%

This means around one-third of all swimming activity taking place in Braintree's pools comes from residents living outside the district.

Where Does the Imported Demand Come From?

July 2026

By 2041 Imported demand is expected to come from:

Origin Authority	% of Imported Demand
Colchester	42%
Maldon	26%
Chelmsford	20%
Uttlesford	8%
Babergh	2%

Housing growth impact by 2041

The evidence suggests there are three growth centres for leisure planning:

1. Braintree / Great Notley

- Largest absolute population in the district
- Major housing allocations with up to 2500 homes
- Will have the largest overall demand for swimming in the district

2. Witham / Kelvedon A12 Corridor

- Strong housing growth, with circa 5000 homes
- Highest cross-boundary imported demand.
- Expected to reach 100% swimming facility capacity

3. Halstead

- Significant eastern expansion – circa 2800 homes
- Growing local demand, with swimming faculties expected to reach 96% capacity

Conclusion

For the period up until 2041 the council should focus on asset development rather than asset expansion, informed by the following considerations:

- Halstead Leisure Centre will be the oldest facility, with 96% of its capacity expected to be met
- Witham Leisure Centre is expected to be at 100% capacity, with the highest imported demand and housing growth (in Kelvedon)
- Braintree Swimming Pool serves the largest population in the District, however any future investment will need to take into consideration the 25-year lease which will come to an end 2033. Should the Council decide not to continue with the lease then the demand for swimming pools in the district and Braintree Town would not be met.
- One third of swimming pool users come from outside the district and should be considered as a strength, also recognising the commercial opportunities this drives for the Councils Leisure Contract