

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

Bespoke Report

24 October 2025

This document has been produced by ORH on behalf of Sport England for Mansfield District Council on 24 October 2025. This document can be reproduced by Mansfield District 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 Mansfield District Council and Sport England, this report also contains data from the following sources:

Ordnance Survey data © Crown copyright and database rights 2025 OS AC0000850566.

National Statistics data © Crown copyright and database right 2025.

Population distribution based on 2021 Census data for output areas. Population total modified by 2022-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 2022-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 Mansfield District Council (also referred to as Mansfield, or the District) is reviewing its current provision of swimming pools and assessing the future demand and level of provision required to 2043.
- 0.2 This report has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool. The FPM study is a quantitative, accessibility and spatial assessment of the supply, demand and access to swimming pools.
- 0.3 The FPM modelling runs are to provide assessments for how the swimming pools in the Mansfield District Council area and the neighbouring local authorities meet demand:
- Run 1 – a baseline assessment of the existing swimming pools to assess the current levels of demand from the resident population in 2025
 - Runs 2 to 4 – forward assessments for how different scenarios of swimming pools would meet future demand, taking account of changes in the total population in Mansfield and the study area in 2043
 - Run 2 – no changes to supply
 - Run 3 – modelled replacement of Water Meadows Swimming and Fitness Complex with Water Meadows 2
 - Run 4 – modelled closure of Rebecca Adlington Leisure Centre
- 0.4 The main report sets out the full set of findings under each of the seven assessment headings.
- 0.5 The next section of the report provides the headline strategic overview, and the key findings and interventions arising from the FPM study on supply, demand and accessibility.

Headline Strategic Overview

- 0.6 The headline strategic finding is that nearly all the current and future demand for swimming pools can be met by the available supply in each run. Unmet demand is very low. However, the public leisure centre swimming pools are either completely full or uncomfortably full.
- 0.7 The modelled closure of Rebecca Adlington Leisure Centre leaves only one public leisure centre in Mansfield, and excluding this site has the following results:
- The lowest level of met and retained demand
 - The highest level of exported demand and unmet demand
 - Demand is almost equal to supply
 - The centre is estimated to be completely full in all the runs where it is included

- 0.8 Based on the FPM assessment, the closure of Rebecca Adlington Leisure Centre is not supported. This is due to the above factors and the loss of accessibility for residents resulting from the reduction to only one public leisure centre. Furthermore, there is no scope to increase availability and capacity at Water Meadows 2 to offset the closure of Rebecca Adlington Leisure Centre because that site is already available for the maximum peak period hours.
- 0.9 The swimming pool stock in Mansfield is old. In 2025 the average age of all the swimming pool sites is 44 years, and in 2043 is 62 years. Providing Water Meadows 2 and closing Rebecca Adlington Leisure Centre reduces the average age to 32 years, but with only one public leisure centre available.

Key Findings

- 0.10 The key findings that underpin the headline strategic overview are as follows:
1. The public leisure centres provide 74% of the available capacity in Runs 1 and 2, 71% in Run 3, and 65% in Run 4. While the number of public leisure centres is reduced, they remain the majority provider in all runs.
 2. Mansfield's population is projected to increase by 12% between 2025 and 2043, resulting in a 9% increase in demand for swimming pools.
 3. In Runs 1 to 3 Mansfield's satisfied demand is 95%, the second highest proportion in the study area after Ashfield. In Run 4 there is the least capacity in the District, and Mansfield's satisfied demand is 91%.
 4. The proportion of Mansfield's satisfied demand that is met within the District increases from 85% in Run 1 to 87% in Run 3. Retained demand decreases to 79% in Run 4 with the modelled closure of Rebecca Adlington Leisure Centre.
 5. Mansfield's unmet demand is highest in Run 4 at 9% of demand, equating to 118 sqm of water with a comfort factor included. Across the runs, between 76% and 99% of all unmet demand is too far from a facility. Unmet demand from lack of swimming pool capacity is highest in Run 4 at 24%, equating to 28 sqm of water.
 6. The proportion of used capacity of Mansfield's swimming pools in the weekly peak period increases progressively from 77% in Run 1 to 96% in Run 4. Rebecca Adlington Leisure Centre and Water Meadows 2 are estimated to be completely full in the runs where they are included. Water Meadows Swimming and Fitness Complex is estimated to be uncomfortably full (over 70% of capacity used at peak times) in Runs 1 and 2.

Interventions and Next Steps

- 0.11 The focus for the intervention is on creating a better balance between supply and demand, and providing more capacity at the public leisure centres.
- 0.12 The intervention is to increase the availability and capacity at Water Meadows Swimming and Fitness Complex and Rebecca Adlington Leisure Centre in the weekly peak period.
- Water Meadows Swimming and Fitness Complex
 - Main pool – 0.2 hours
 - Leisure pool – 9.0 hours, if there is sufficient demand for fun and family-based activities
 - Teaching pool – 14.0 hours, if there is sufficient demand for learn to swim
 - Providing this increased availability will reduce the proportion of used capacity to a more comfortable level
 - Rebecca Adlington Leisure Centre
 - Main pool – 24.5 hours
 - Teaching pool – 28.5 hours, if there is sufficient demand for learn to swim
 - These are significant increases, and the full potential will be needed to achieve a comfortable level of operation
- 0.13 Increasing the scale of the two pools modelled at Water Meadows 2 to reduce the proportion of used capacity and provide a more comfortable level of operation is not supported.
- The centre is already very extensive, with a 25m eight-lane pool and a 20m x 10m teaching pool
 - While the centre is estimated to be completely full in Runs 3 and 4, unmet demand across the District from lack of swimming pool capacity is 5 sqm of water in Run 3 and 28 sqm of water in Run 4
- 0.14 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 to inform the Mansfield District Council's strategic planning of indoor sports provision. 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 2043 and beyond.

Contents

1.	Introduction	1
2.	Swimming Pool Supply	4
3.	Demand for Swimming Pools	10
4.	Accessibility	17
5.	Satisfied Demand for Swimming Pools	24
6.	Unmet Demand for Swimming Pools	31
7.	Used Capacity of Facilities.....	39
8.	Local Share of Facilities	49
	Appendix 1: Facilities Excluded	56
	Appendix 2: Facilities in Neighbouring Local Authority Areas Included in the Assessment	57
	Appendix 3: Model Description, Inclusion Criteria and Model Parameters.....	58

1 INTRODUCTION

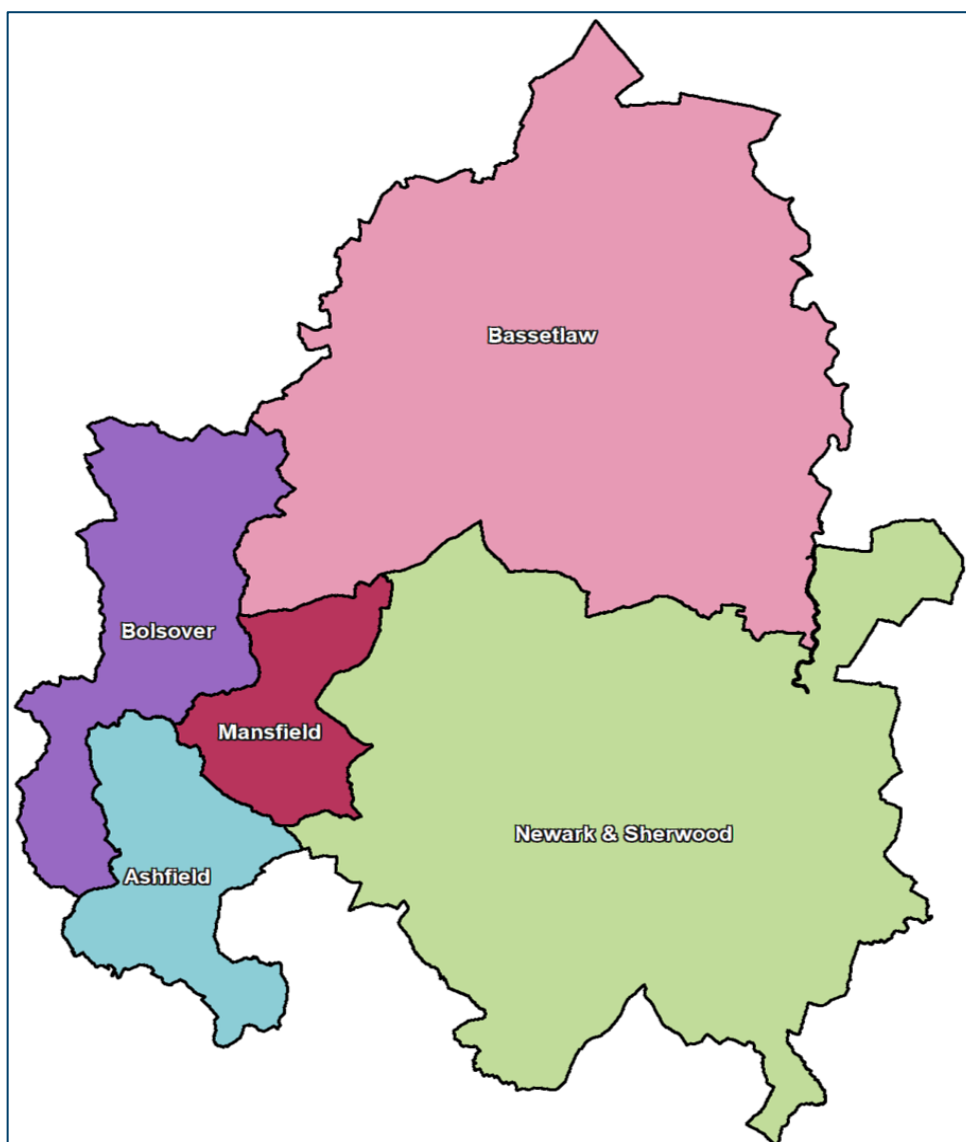
- 1.1 Mansfield District Council (also referred to as Mansfield or the District) is reviewing its current provision of swimming pools and assessing the future provision required to 2043.
- 1.2 This report has been prepared based on an assessment using the Sport England Facilities Planning Model (FPM) spatial modelling tool. The FPM study is a quantitative, accessibility and spatial assessment of the supply, demand and access to swimming pools.
- 1.3 The key drivers for the work are to understand the following:
- How well the current supply of swimming pools meets demand in 2025 and 2043
 - The impact that population change has in meeting the demand for swimming pools and its distribution up to 2043
 - How the modelled changes in the supply of swimming pools meet demand and its distribution up to 2043
 - Consider the viability of the modelled swimming pool changes
- 1.4 The outputs from the FPM assessment will:
- Inform Mansfield District Council's strategic planning review of swimming pool provision and future strategy
 - Provide an assessment of need that contributes to the evidence base for the development of planning policy on the provision of indoor sports facilities
 - Provide guidance on the extent to which the modelled changes in supply meet the projected demand for swimming pools in terms of scale and location
- 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 Mansfield 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 Mansfield, it is important to take full account of the swimming pools and population in the neighbouring local authority areas. The most attractive facility for some Mansfield residents may be outside the District (known as exported demand). For residents of neighbouring local authorities, their most attractive swimming pool may be inside Mansfield (known as imported demand).
- 1.10 To take account of these factors, a study area is established that places Mansfield at its centre and includes the neighbouring local authority areas.

Map 1.1: Study Area for Mansfield Swimming Pools Assessment



Report Structure, Content and Sequence

- 1.11 The findings for the Mansfield assessment are set out in a series of tables for all runs. This allows a 'read across' to see the specific impact of changes between Runs 1 and 4, 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

Mansfield is very dependent on its public leisure centres to meet the demand for swimming pools and provide for all residents. There are only two other swimming pools in the District, both of which are small and have membership-only access.

There is scope to increase availability and capacity in the weekly peak period at the existing public leisure centres.

The swimming pool stock in Mansfield is old. In 2025 the average age of all the swimming pool sites is 44 years. If there is no change to the swimming pool supply, the average age in 2043 will be 62 years.

Table 2.1: Supply of Swimming Pools in Mansfield by Run

Supply	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Number of pools	7	7	6	4
Number of pool sites	4	4	4	3
Total water space in sqm	1,598	1,598	1,398	965
Available sqm of water in weekly peak period	1,295	1,295	1,184	963
Unavailable supply in the weekly peak period	19%	19%	15%	0%
Supply in visits per week in peak period	11,330	11,330	10,361	8,423
Average age of all sites	44	62	52	32
Average age of public leisure centres	64	82	61	11

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.

Table 2.2: Details of Swimming Pools in Mansfield included in the Runs

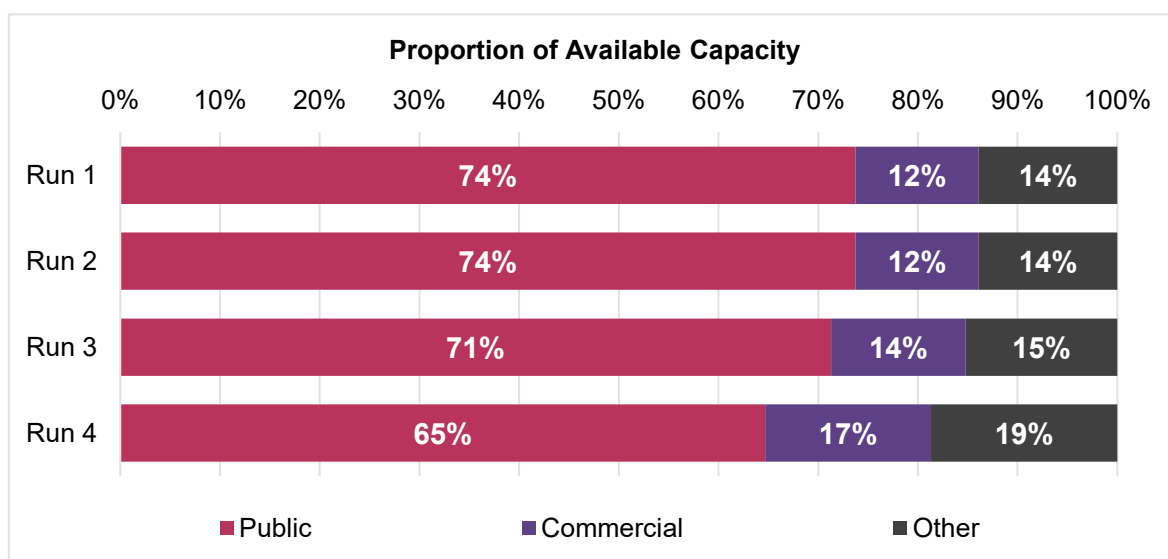
Site	Provider	Type	Dimensions (m)	Area (sqm)	Peak Period Hours	Available Hours	Capacity (visits in the weekly peak period)	Year Built	Year Refurb
Rebecca Adlington Leisure Centre (Runs 1 to 3 only)	Public	6-lane Teaching	25 x 12.5 20 x 6	312.5 120	28 24	43 33.5	1,938	1933	2014
Water Meadows Swimming and Fitness Complex (Runs 1 and 2 only)	Public	6-lane Leisure Teaching	25 x 13 25 x 18 10 x 5	325 450 50	52.3 43.5 38.5	90.5 65 52	6,416	1990	
Water Meadows 2 (Runs 3 and 4 only)	Public	8-lane Teaching	25 x 17 20 x 10	425 200	52.3 52.3	93.5 93.5	5,448	2032	
Bannatyne Health Club	Commercial	Main	20 x 8	160	52.5	107	1,400	2001	
Your Space	Other	Main	18 x 10	180	52.5	100	1,575	2001	

Modelling Scenarios

- 2.1 Runs 1 and 2 model seven swimming pools across four sites.
- 2.2 In Run 3, Water Meadows Swimming and Fitness Complex is modelled to close and be replaced by Water Meadows 2. Run 3 has less swimming pool capacity than Runs 1 and 2.
- 2.3 In Run 4, Rebecca Adlington Leisure Centre is modelled to close. Run 4 has four swimming pools across three sites and has the least swimming pool capacity.
- 2.4 The facilities excluded from the study are listed in Appendix 1. Warsop Health Hub is a 15m x 8m pool with 120 sqm of water. It is excluded from the assessment because this size of pool is unable to provide a range of swimming activities, although it is acknowledged that Warsop Health Hub provides a very important swimming pool for the local community.

Providers and District-wide Capacity

Chart 2.1: Proportion of Available Capacity by Run and Provider



- 2.5 There are two public leisure centres in Runs 1 to 3, and one in Run 4. All the public leisure centres have both a main pool and a teaching pool. Water Meadows Swimming and Fitness Centre also has a leisure pool in Runs 1 and 2. The swimming pools provide all the swimming activities of:
- Learn to swim
 - Casual recreational swimming
 - Lane and fitness swimming
 - Swimming development through clubs
 - Fun and family-based activities (leisure waters at Water Meadows Swimming and Fitness Complex in Runs 1 and 2)

- 2.6 **Key finding 1** is that the public leisure centres provide 74% of the available capacity in Runs 1 and 2, 71% in Run 3, and 65% in Run 4. While the number of public leisure centres is reduced in Run 4, they remain the majority provider in all runs.
- 2.7 Bannatyne Health Club is the only commercial swimming pool in all three runs. Commercial sites are membership-based and provide recreational swimming for their membership only. This single pool site provides 12% of the available capacity in Runs 1 and 2, 14% in Run 3, and 17% in Run 4.
- 2.8 There is one other provider, **Your Space**, which is also a single-pool site. This is a club facility and again is membership-based. The site provides 14% of the available capacity in Runs 1 and 2, 15% in Run 3, and 19% in Run 4.

Scale

- 2.9 In Runs 1 and 2, Water Meadows Swimming and Fitness Centre is the largest swimming pool site in Mansfield at 825 sqm of water, and accounts for 57% of the available water space in the District. It has the only leisure pool, which has capacity of 450 sqm of water. It also has a 25m six-lane pool and a 10m x 5m teaching pool. This centre can accommodate 6,416 visits in the weekly peak period.
- 2.10 In Runs 3 and 4, Water Meadows 2 is the largest site at 625 sqm of water. It has a 25m eight-lane pool and a 20m x 10m teaching pool. The site's capacity is 5,448 visits in the weekly peak period, which is 15% less than the existing Water Medows Swimming and Fitness Complex. There is no leisure pool and, therefore, the range of activities is reduced.
- 2.11 Rebecca Adlington Leisure Centre has a 25m six-lane pool and a 20m x 6m teaching pool. The total water space is 432.5 sqm of water and it can accommodate 1,938 visits in the weekly peak period.
- 2.12 Bannatyne Health Club is the slightly smaller of the membership-based pools and is the smallest pool in Mansfield. It has a 20m x 8m pool and can accommodate 1,400 visits in the weekly peak period.
- 2.13 Your Space has an 18m x 10m pool with a capacity of 1,575 visits in the weekly peak period.

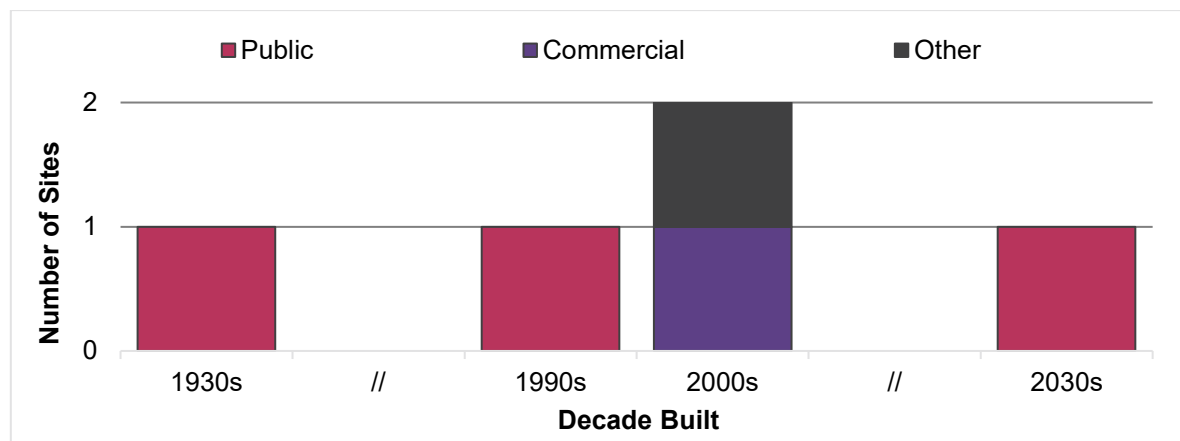
Availability

- 2.14 Both membership-based swimming pools are available for the maximum 52.5 hours in the weekly peak period.
- 2.15 The swimming pools at the public leisure centres range in the number of hours they are available in the weekly peak period. The scope to increase availability at each pool is as follows:
- Rebecca Adlington Leisure Centre
 - Main pool – 24.5 hours

- Teaching pool – 28.5 hours, if there is sufficient demand for learn to swim
- Water Meadows Swimming and Fitness Complex
 - Main pool – 0.2 hours
 - Leisure pool – 9.0 hours, if there is sufficient demand for fun and family-based activities
 - Teaching pool – 14.0 hours, if there is sufficient demand for learn to swim
- Water Meadows 2
 - Main pool – 0.2 hours
 - Teaching pool – 0.2 hours

Age

Chart 2.2: Decade Built of Swimming Pools in Mansfield by Provider

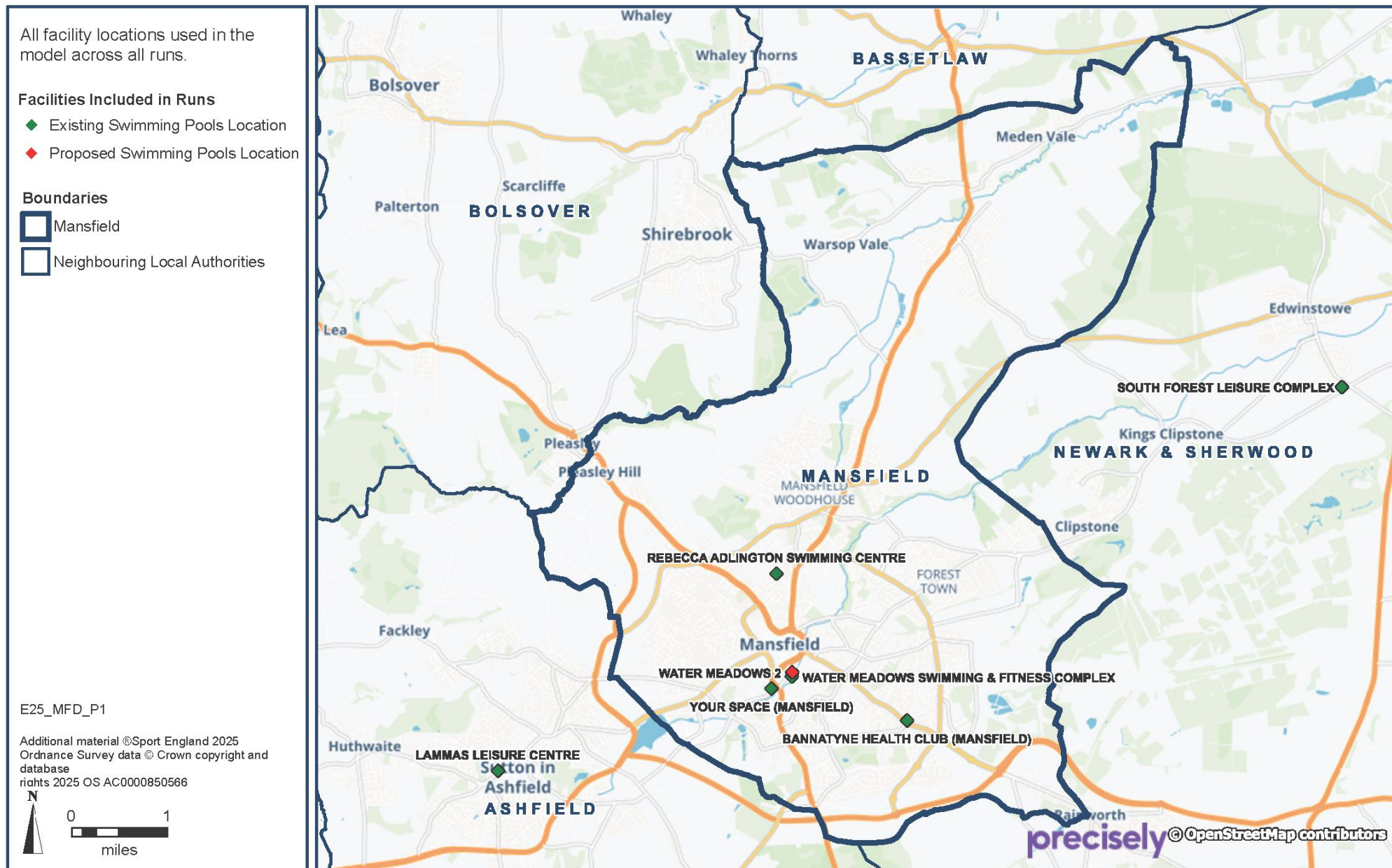


- 2.16 Rebecca Adlington Leisure Centre is significantly older than the other sites in Mansfield, having been built in 1933. However, the centre had a significant refurbishment in 2014.
- 2.17 Water Meadows Swimming and Fitness Complex was built in 1990 and has not been refurbished.
- 2.18 The membership-based sites are more modern, both having opened in 2001 and not been refurbished.
- 2.19 Water Meadows 2 is modelled to open in 2032, and in 2043 will be 11 years old.

Swimming Pool Locations

- 2.20 All the swimming pool sites modelled are in Mansfield town (see Map 2.1). Warsop Health Hub in the north of the District is excluded from the modelling.
- 2.21 There are no swimming pool sites located close to the Mansfield boundary in Bolsover and Bassetlaw. Lammas Leisure Centre in Ashfield is 1.5 miles from the Mansfield boundary and South Forest Leisure Complex in Newark and Sherwood is 2.5 miles from the Mansfield boundary.

Map 2.1: Location of Swimming Pools Across the Runs (2025 and 2043)



3 DEMAND FOR SWIMMING POOLS

The available supply in Mansfield is greater than demand in Runs 1 to 3. In Run 4 demand is almost equal to the available supply.

Demand increases in all the local authorities in the study area between 2025 and 2043. The largest increase in demand for water space is in Mansfield.

Demand in Mansfield is much higher in the southern half of the District than the northern half. The public leisure centres are located in areas of high demand.

Deprivation is high in Mansfield (see paragraphs 3.17 and 3.18 for the definition of deprivation).

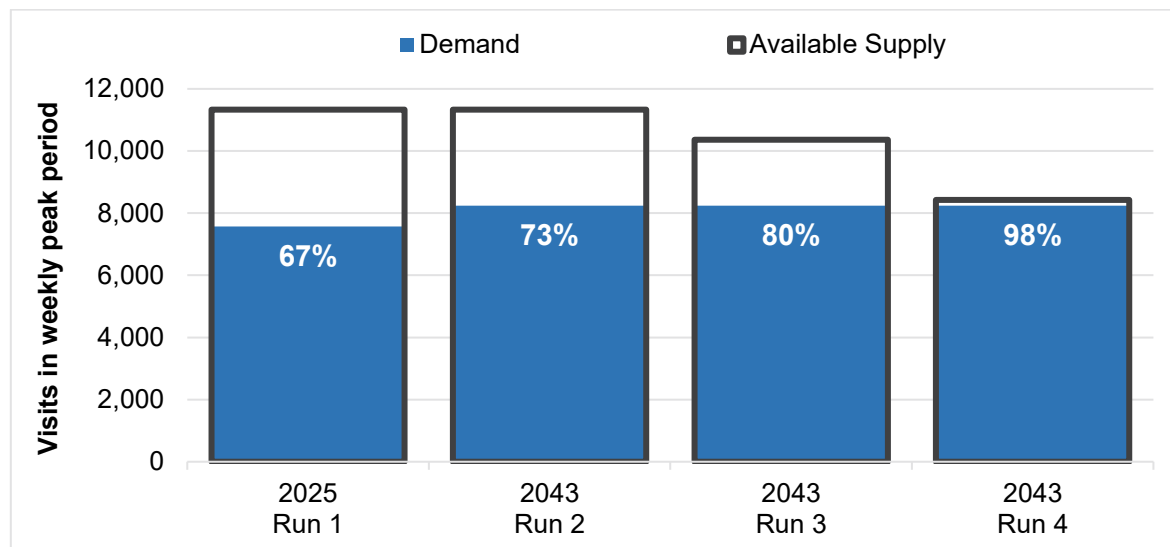
Table 3.1: Demand for Swimming Pools in by Run

Demand	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Resident population	113,770	126,887	126,887	126,887
Visits demanded in weekly peak period	7,569	8,243	8,243	8,243
Demand in sqm of water with comfort factor included	1,245	1,355	1,355	1,355
% of demand in the 10% most deprived LSOAs nationally	15%	15%	15%	15%

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 based on the resident population. Mansfield District Council provided its population forecasts by age group for 2025 and 2043.
- 3.2 **Key finding 2** is that Mansfield's population is projected to increase by 12% between 2025 and 2043, resulting in a 9% increase in demand for swimming pools.
- 3.3 The smaller increase in demand compared with population growth is because of the ageing of the population in Mansfield between 2025 and 2043. There will be fewer residents in the age bands with the highest swimming participation (0-15 year olds and 25-39 year olds) in 2043 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 Mansfield by Run



3.4 Mansfield's demand as a proportion of its available supply is:

- Run 1 – 67%
- Run 2 – 73%, when demand increases in 2043
- Run 3 – 80%, when capacity decreases with the change in supply
- Run 4 – 98%, when capacity is reduced further and there is only one public leisure centre

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	Runs 2-4	Difference 2025 to 2043	
Local Authority	2025	2043	Sqm of water	% Change
Mansfield	1,245	1,355	110	9%
Bolsover	907	989	82	9%
Ashfield	1,403	1,441	38	3%
Bassetlaw	1,327	1,423	96	7%
Newark and Sherwood	1,380	1,483	103	7%

3.5 Demand increases in all the neighbouring local authorities between 2025 and 2043. The largest percentage increase is in Bolsover at 9%. However, the increase is only the equivalent of 82 sqm of water including a comfort factor.

3.6 Demand increases by 7% in Newark and Sherwood, and Bassetlaw. The smallest increase in demand is in Ashfield at 3%.

- 3.7 Mansfield has the largest increase in demand across the study area, at 110 sqm of water including a comfort factor.

Geographical Distribution of Demand

- 3.8 Demand is highest in Mansfield town in both 2025 and 2043. There is considerably more demand in the southern half of the District.
- 3.9 Water Meadows Swimming and Fitness Complex is located in the area of highest demand in both 2025 and 2043.

2025

- 3.10 In 2025 (see Map **3.1**), the greatest density of demand is at the location of Water Meadows Swimming and Fitness Complex (southeast of Mansfield town centre) at 44 sqm of water per square kilometre (dark green square).
- 3.11 The areas of greatest demand across six square kilometres are as follows:
- Southeast Mansfield town – 169 sqm of water
 - Northwest Mansfield town – 156 sqm of water
 - Northeast Mansfield town – 155 sqm of water
 - Mansfield Woodhouse – 120 sqm of water
- 3.12 Two areas have smaller clusters of demand:
- Southwest Mansfield town – 83 sqm of water across five square kilometres
 - Market Warsop – 73 sqm of water across six square kilometres

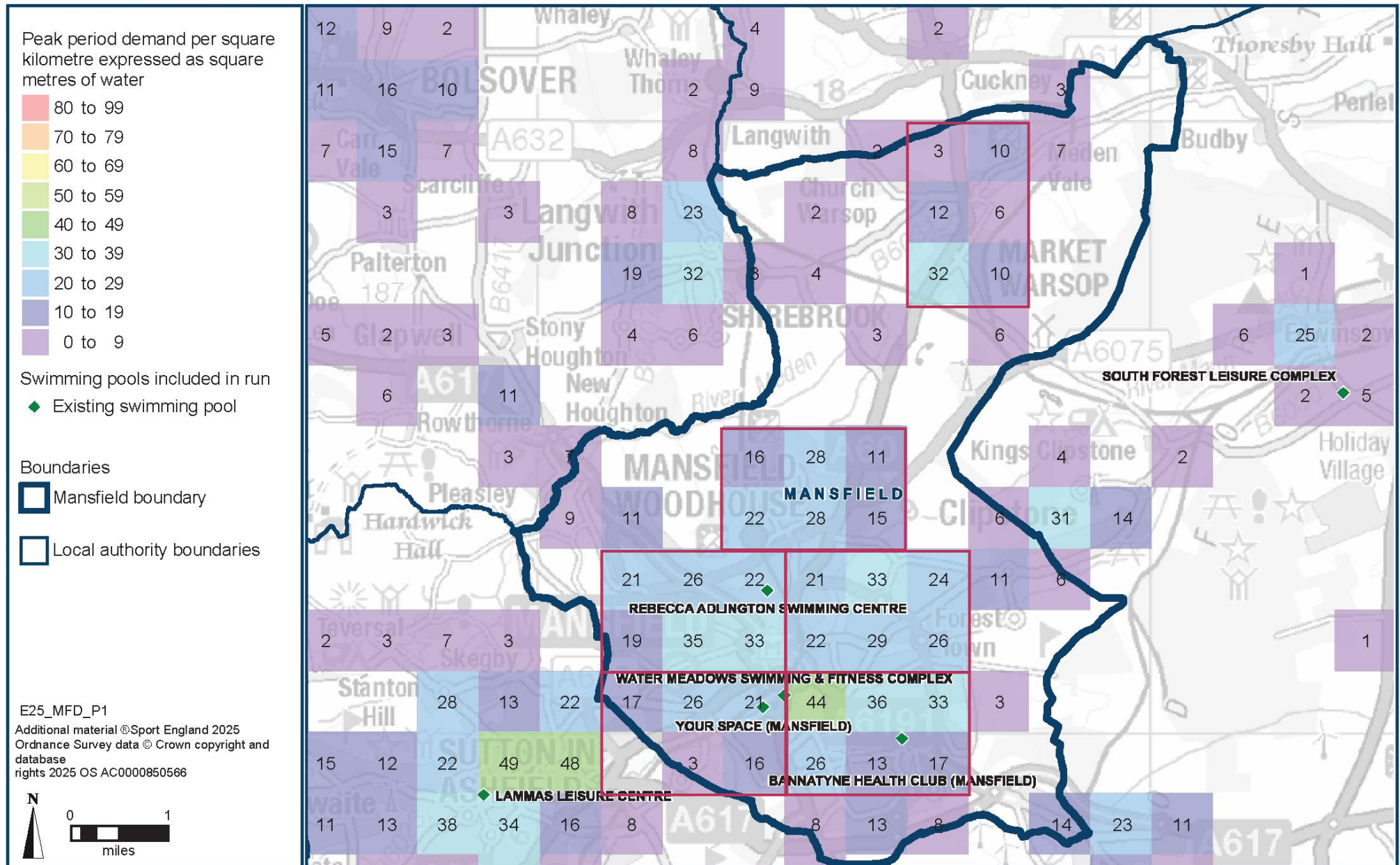
2043

- 3.13 In 2043 demand increases across Mansfield (see Map **3.2**).
- 3.14 The greatest density of demand is at the same location and increases to 47 sqm of water per square kilometre (dark green square).
- 3.15 Demand increases and remains highest in the same areas:
- Southeast Mansfield town – increases by 14 sqm of water to 183 sqm of water
 - Northwest Mansfield town – increases by 15 sqm of water to 171 sqm of water
 - Northeast Mansfield town – increases by 14 sqm of water to 169 sqm of water
 - Mansfield Woodhouse – increases by 12 sqm of water to 132 sqm of water
- 3.16 There are smaller increases in demand in the following areas:
- Southwest Mansfield town – increases by 7 sqm of water to 90 sqm of water
 - Market Warsop – increases by 6 sqm of water to 79 sqm of water

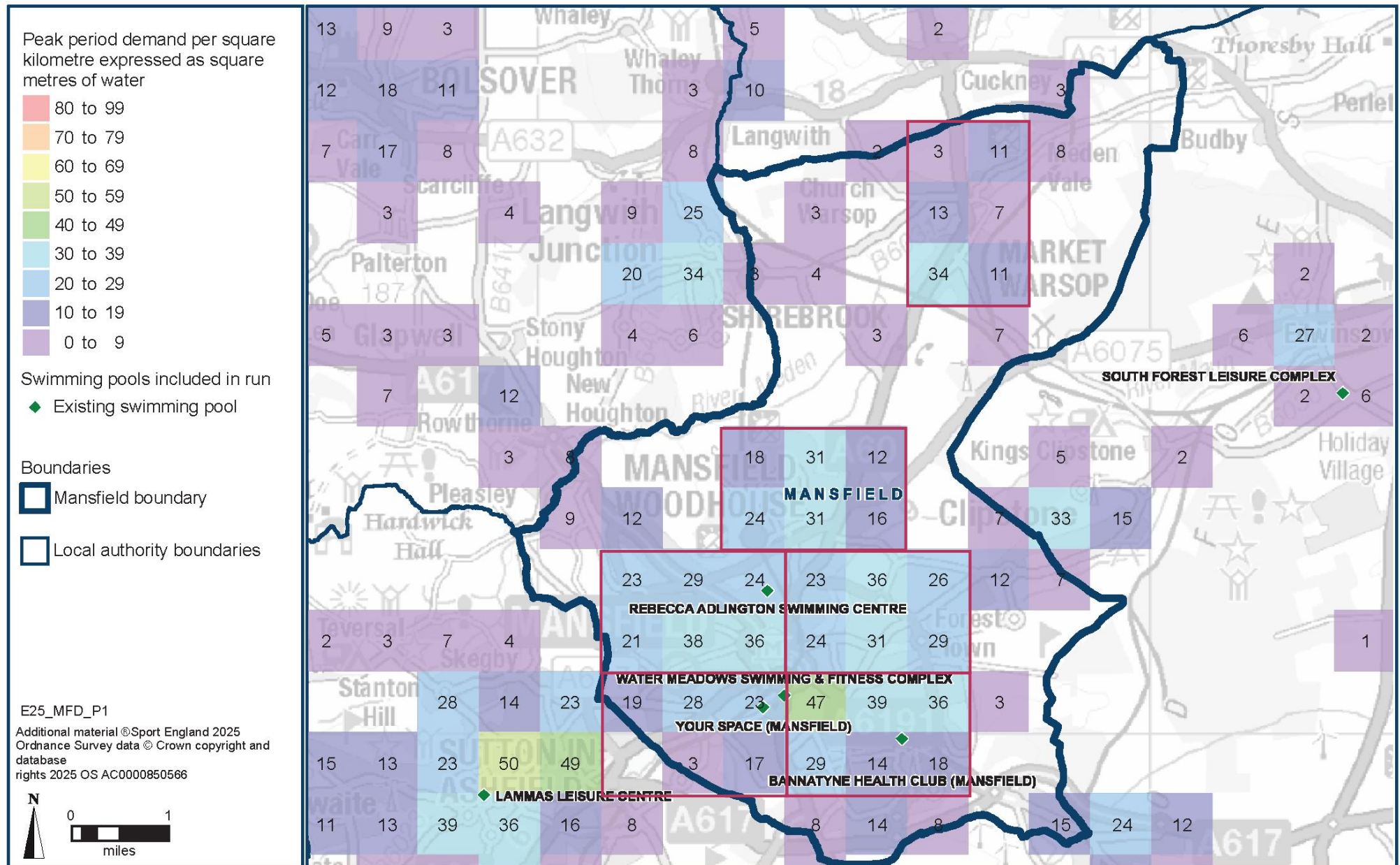
Deprivation

- 3.17 Of Mansfield's demand, 15% is in the 10% most deprived lower super output areas nationally. The areas of greatest deprivation are as follows (dark brown areas in Map **3.3**):
- Southeast outskirts of Mansfield by Ransom Wood
 - Northeast Mansfield town and Forest Town
 - Southwest Mansfield town – west of Water Meadows Swimming and Fitness Complex and Water Meadows 2
 - Mansfield Woodhouse
 - Market Warsop
- 3.18 The Index of Multiple Deprivation (IMD) score is used in the FPM to limit whether people will use commercial facilities such as Bannatyne Health Club (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.

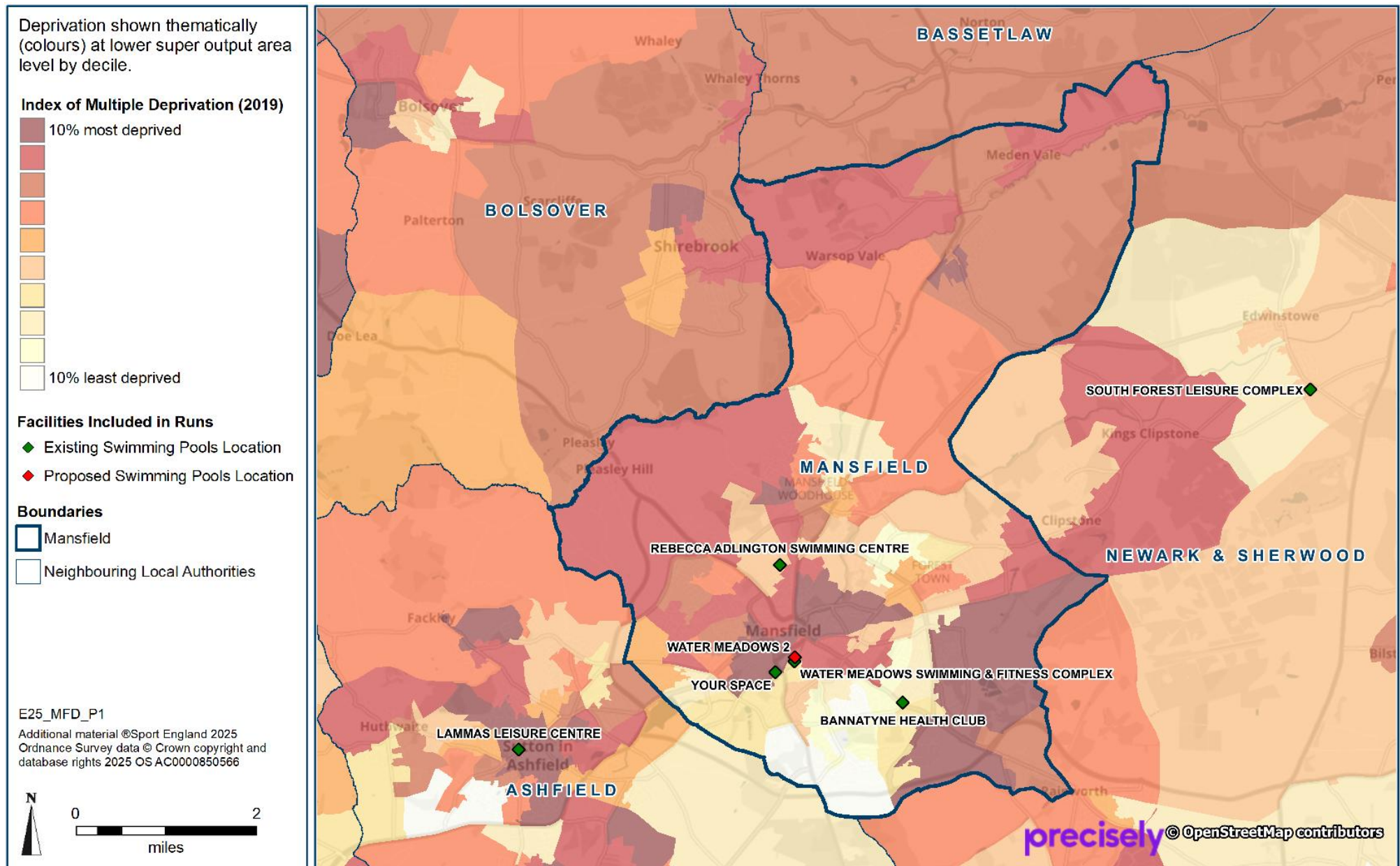
Map 3.1: Demand for Swimming Pools in 2025 (Run 1)



Map 3.2: Demand for Swimming Pools in 2043 (Run 2)



Map 3.3: Deprivation in 2019 (All Runs)



4 ACCESSIBILITY

In Runs 1 to 3, 37% of Mansfield's residents are within a 20-minute walk of a swimming pool. In Run 4 the proportion is lower at 28%, due to the exclusion of one swimming pool site.

All the swimming pools are within a five-minute walk of a bus stop.

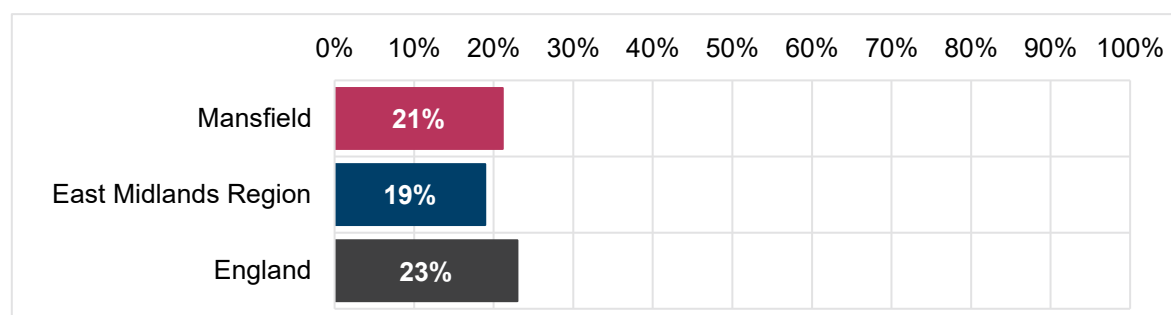
In all four runs, Mansfield's residents can reach at least five swimming pool sites within a 20-minute drive.

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

Accessibility	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
% of total residents within a 20-minute walk of a swimming pool	37%	37%	37%	28%
% of 10% most deprived residents within a 20-minute walk of a pool	59%	60%	60%	55%
% of demand satisfied when travelled:				
on foot	16%	15%	15%	11%
by public transport or bicycle	10%	10%	10%	9%
by car	74%	75%	75%	80%

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 Mansfield, 21% of residents do not have access to a car. This is above the regional average of 19%, but below 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 In Runs 1 to 3, 37% of Mansfield's residents are within a 20-minute walk of a swimming pool. Access is best to the north of Mansfield town centre, where residents can walk to three swimming pool sites within 20 minutes (dark orange areas in Map 4.1).
- 4.3 In Run 4, 28% of Mansfield's residents are within a 20-minute walk of a swimming pool. The closure of Rebecca Adlington Leisure Centre means that residents in north Mansfield town and Mansfield Woodhouse are more than a 20-minute walk from a swimming pool (see Map 4.2).
- 4.4 Not all residents in these areas will walk to a swimming pool and some will travel further. In Run 1 it is estimated that 16% of all journeys to swimming pools by Mansfield residents are made on foot. This decreases to 15% in Runs 2 and 3, and 11% in Run 4.

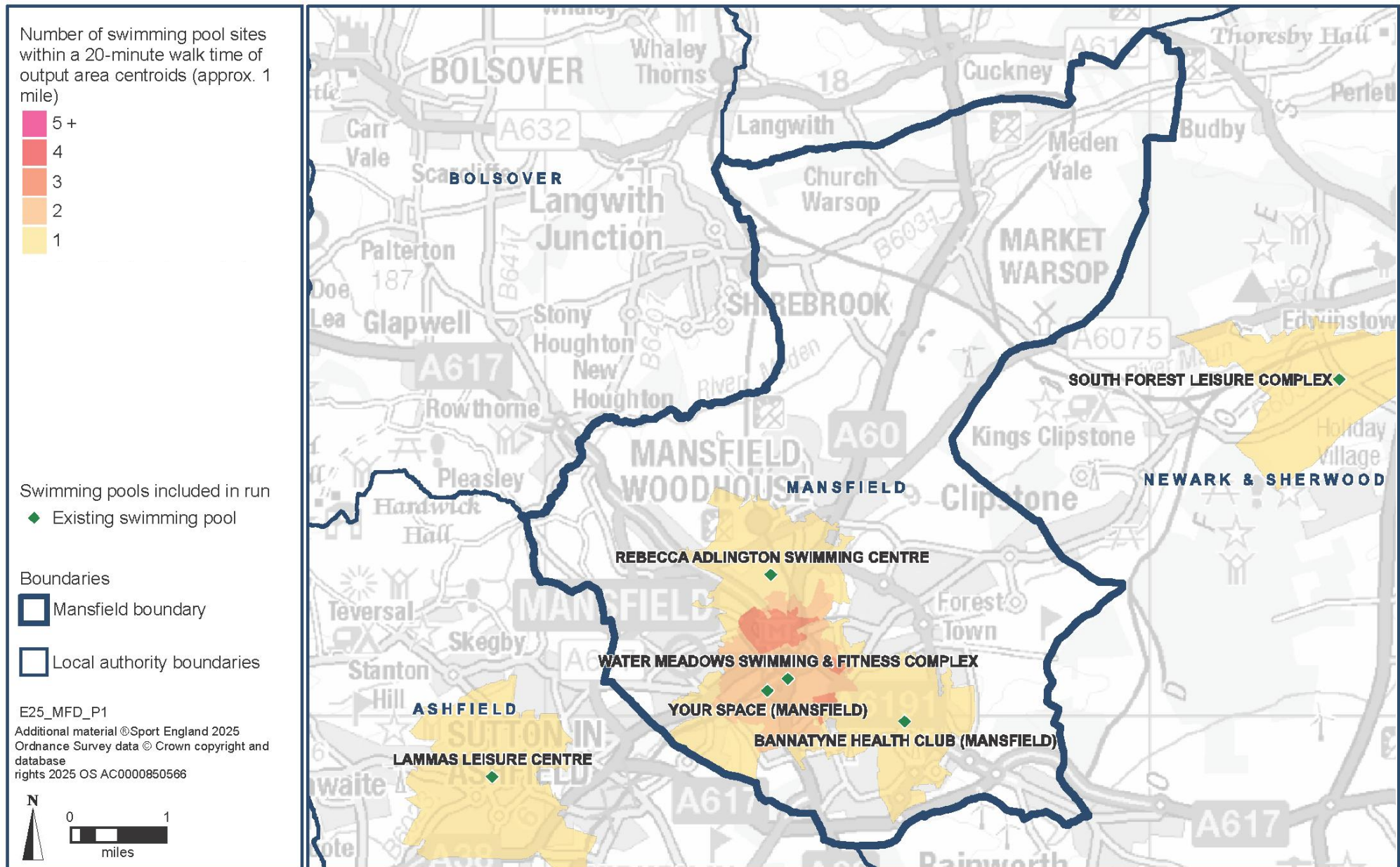
Public Transport Access

- 4.5 All the swimming pool sites are within a five-minute walk of an existing bus stop (pink areas in Map 4.3).
- 4.6 Water Meadows Swimming and Fitness Complex, Water Meadows 2 and Your Space are all within a 10-minute walk of Mansfield railway station (purple areas in Map 4.4).
- 4.7 It should be noted that, while most Mansfield 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 10% of all journeys to swimming pools by Mansfield residents are made by public transport or bicycle in Runs 1 to 3, and 9% in Run 4.

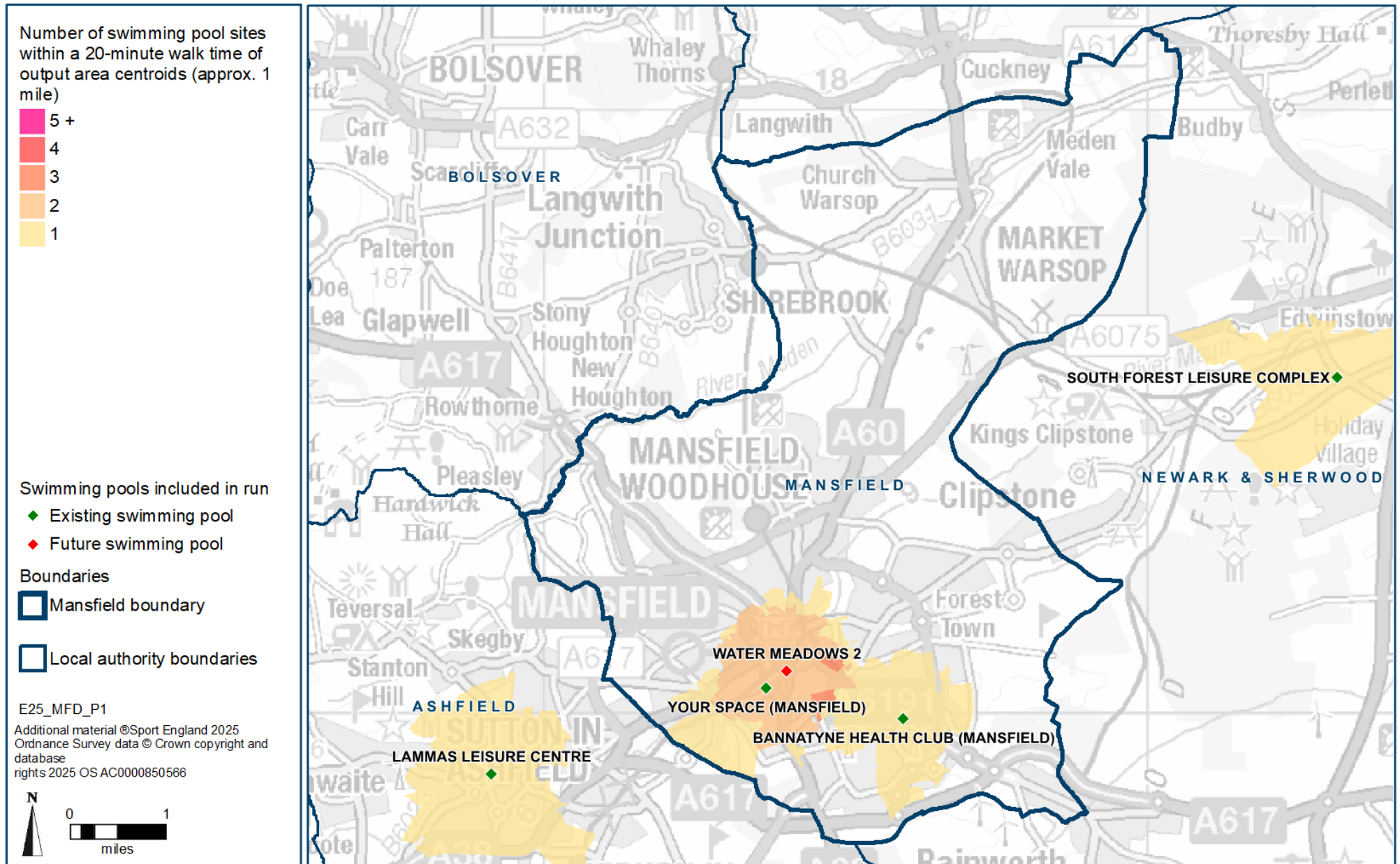
Driving Access

- 4.9 In all four runs, Mansfield residents can drive to at least five swimming pools sites with a 20-minute drive.
- 4.10 In Runs 1 to 3, access is best at between ten and 14 sites in the north of Mansfield and a small area in the west of the District (blue areas in Map 4.4).
- 4.11 In Run 4, the exclusion of Rebecca Adlington Leisure Centre reduces the size of the area in the north of the District that is within a 20-minute drive of between ten and 14 sites (see Map 4.5).
- 4.12 In Run 1, it is estimated that 74% of all journeys to swimming pools by Mansfield residents are made by car. This increases to 75% in Runs 2 and 3, and 80% in Run 4.

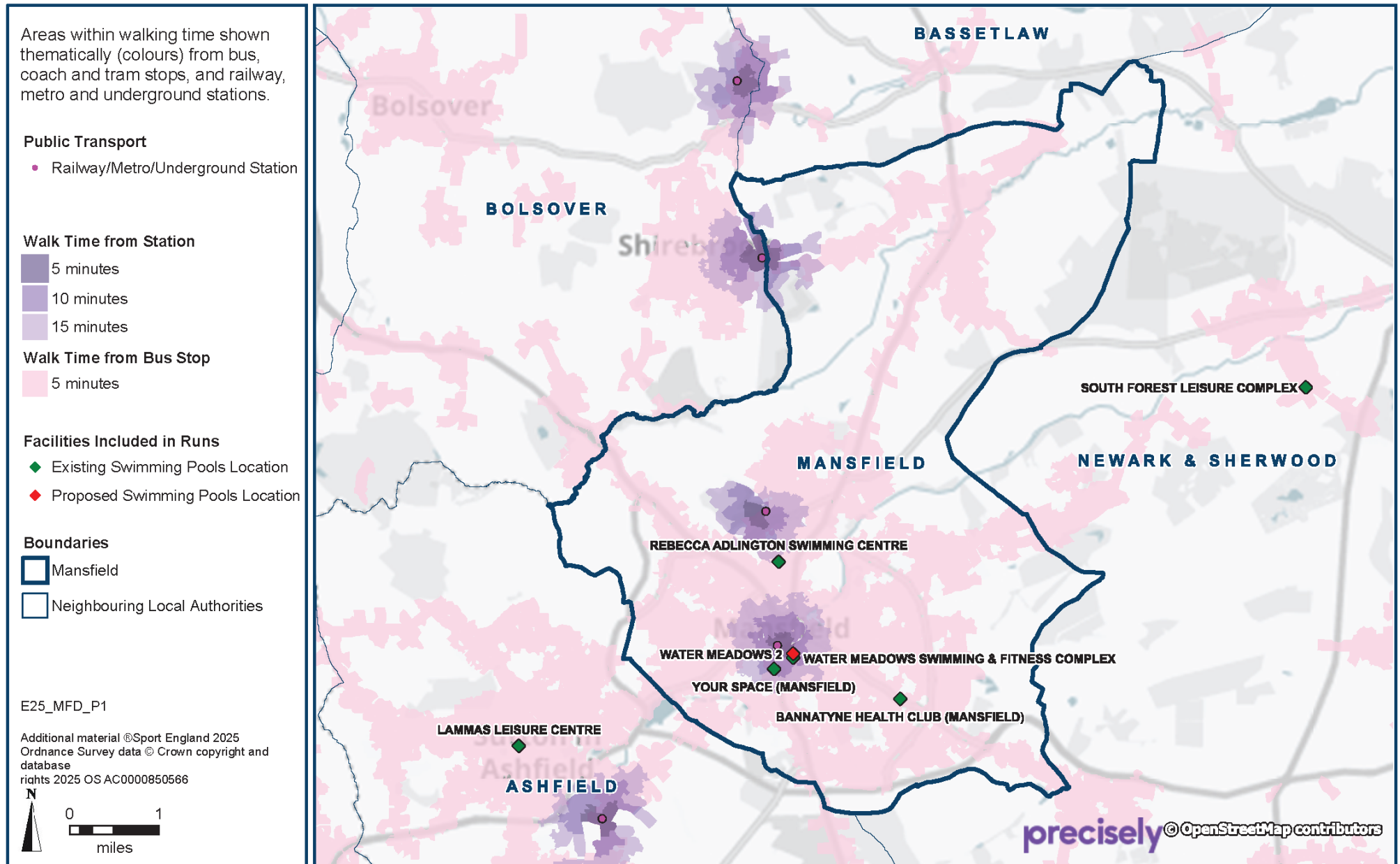
Map 4.1: Walking Access to Swimming Pools in Runs 1 and 2 (2025 and 2043)



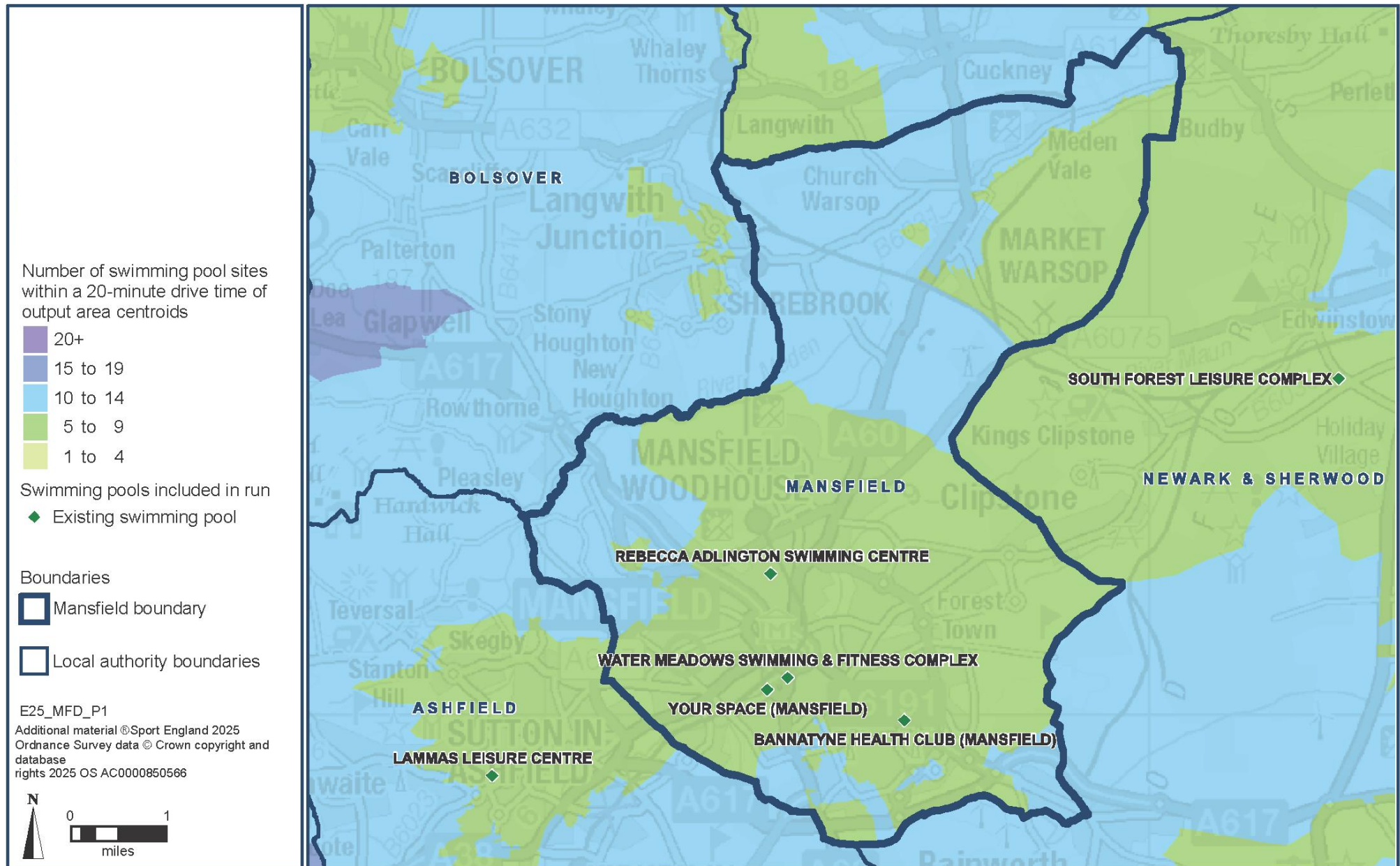
Map 4.2: Walking Access to Swimming Pools in Run 4 (2043)



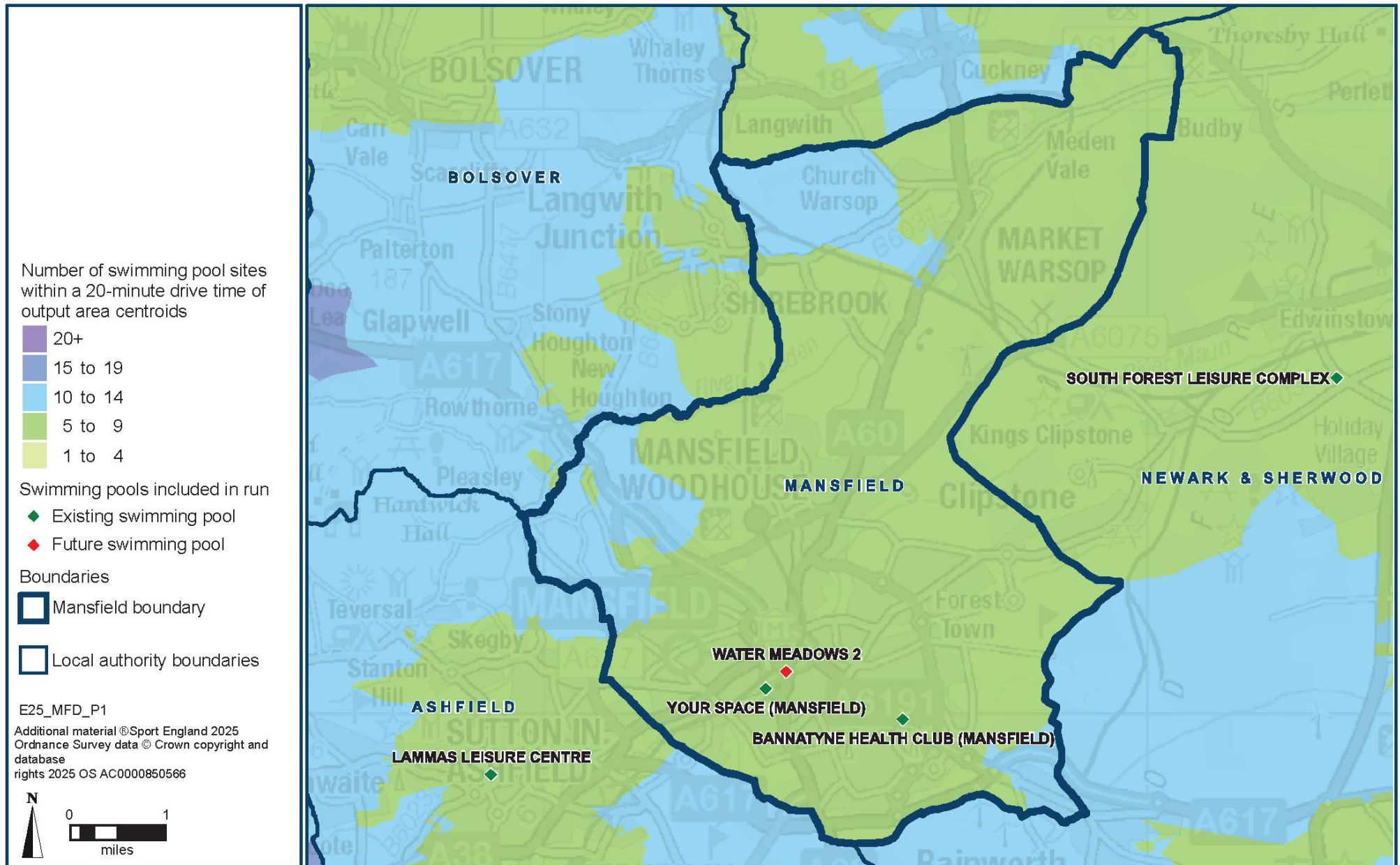
Map 4.3: Walking Access to Public Transport in All Runs (2025 and 2043)



Map 4.4: Driving Access to Swimming Pools in Runs 1 and 2 (2025 and 2043)



Map 4.5: Driving Access to Swimming Pools in Run 4 (2043)



5 SATISFIED DEMAND FOR SWIMMING POOLS

In Runs 1 to 3 the proportion of Mansfield's satisfied demand is higher than both the regional and national proportions. It is lower in Run 4 when there is only one public leisure centre in Mansfield.

Run 3 has the most satisfied demand within Mansfield, and the least exported. Run 4 has the least satisfied demand met within Mansfield, and the most exported

Around half of Mansfield's exported demand goes to Ashfield in all four runs.

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

Satisfied Demand	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Number of visits which are met per week in peak period	7,214	7,841	7,828	7,527
% of total demand satisfied	95%	95%	95%	91%
Number of visits retained per week in peak period	6,133	6,742	6,772	5,955
Demand retained as a % of satisfied demand	85%	86%	87%	79%
Number of visits exported per week in peak period	1,080	1,099	1,057	1,572
Demand exported as a % of satisfied demand	15%	14%	13%	21%

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

- 5.1 The number of visits from Mansfield residents that are met in the weekly peak period is highest in Run 2 at 7,841 visits, when demand and capacity in Mansfield are at their highest. It is lowest in Run 1 at 7,214 visits, when demand is lowest.
- 5.2 **Key finding 3** is that Mansfield's satisfied demand is 95% in Runs 1 to 3, and is the second highest proportion in the study area after Ashfield. In Run 4, when there is the least capacity in the District, Mansfield's satisfied demand is 91%.
- 5.3 The proportion of demand met in each of the neighbouring local authorities is also very high. It is highest in Ashfield at 96% in Runs 1 to 3, and 95% in Run 4. It is lowest in Bolsover at 90% in Run 1, 89% in Runs 2 and 3, and 88% in Run 4.
- 5.4 Details of the swimming pools in the neighbouring local authority areas are listed in Appendix 2.

Table 5.2: Proportion of Demand Met by Area and Run

Proportion of Demand Met	Run 1	Run 2	Run 3	Run 4
Area	2025	2043	2043	2043
Mansfield	95%	95%	95%	91%
Bolsover	90%	89%	89%	88%
Ashfield	96%	96%	96%	95%
Bassetlaw	94%	94%	94%	94%
Newark and Sherwood	93%	93%	93%	92%
East Midlands Region	94%	94%	94%	94%
England	93%	93%	93%	93%

Retained Demand

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

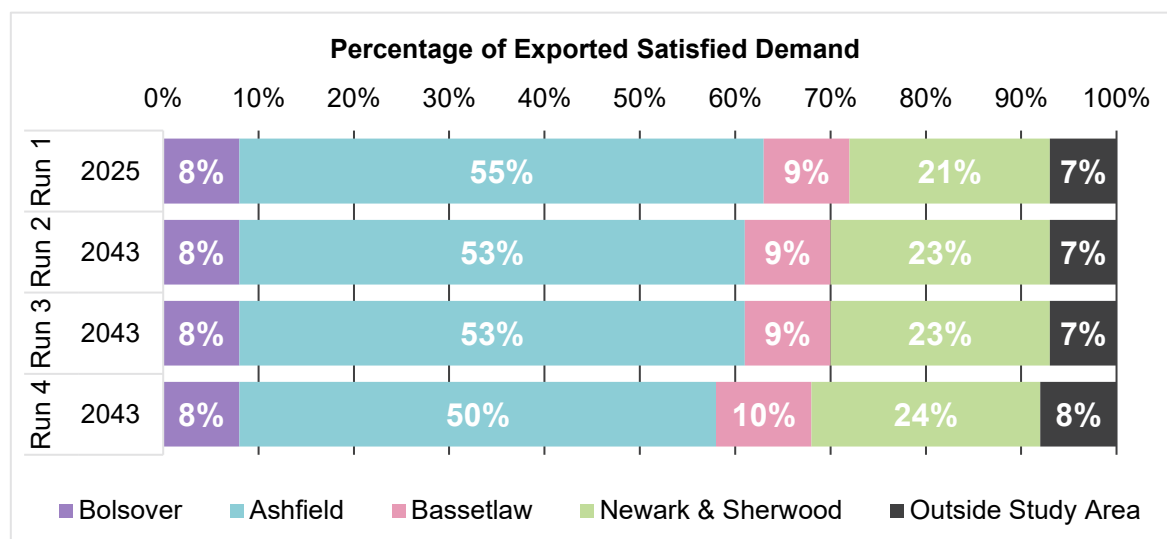
- 5.5 **Key finding 4** is that the proportion of Mansfield's satisfied demand that is met within the District increases from 85% in Run 1 to 87% in Run 3. Retained demand decreases to 79% in Run 4 with the modelled closure of Rebecca Adlington Leisure Centre.

Exported Demand

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

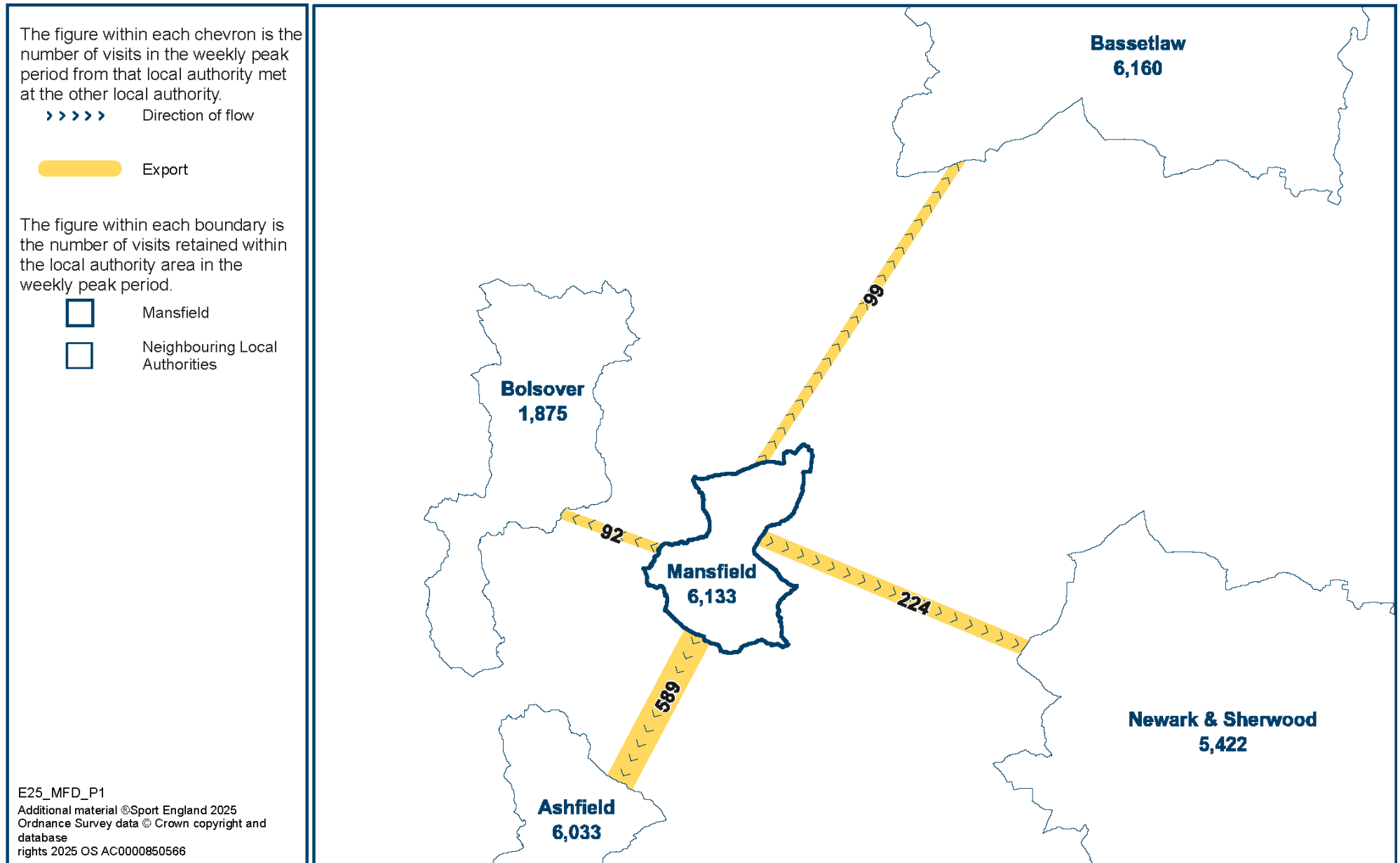
- 5.6 Mansfield exports the fewest visits in Run 3, which accounts for 13% of its satisfied demand. The most visits are exported in Run 4 at 1,572 in the weekly peak period, which accounts for 21% of Mansfield's satisfied demand.

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

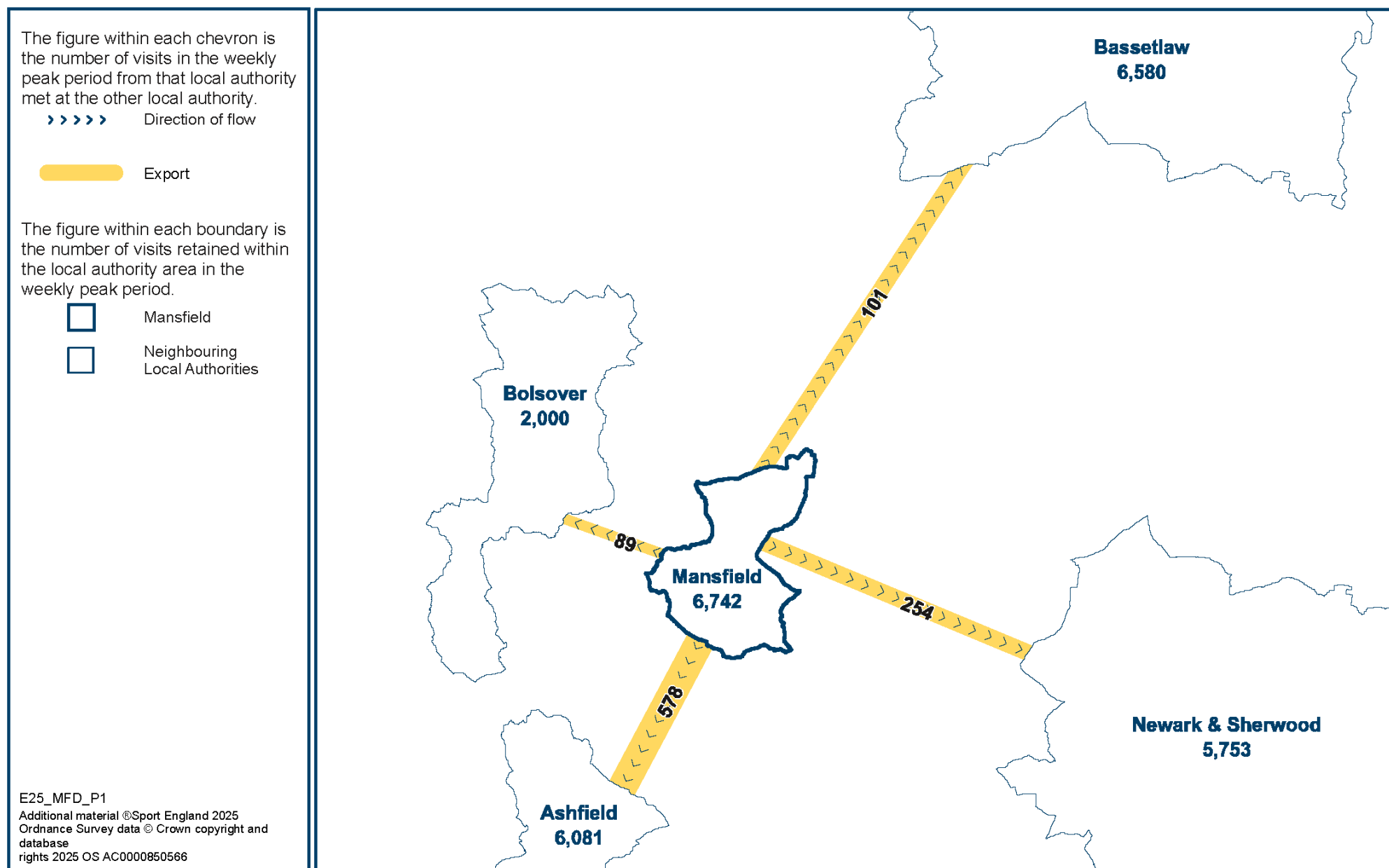


- 5.7 Across all four runs the largest amount of exported demand goes to Ashfield, accounting for between 50% and 55% of Mansfield's exported demand. Demand is high in the south of Mansfield, and Lammas Leisure Centre in Ashfield is accessible to some Mansfield residents. This centre has an extensive main pool and a learner pool, opened in 2008, and is highly attractive.
- 5.8 In Run 1, 589 visits in the weekly peak period go to Ashfield (see Map 5.1), equating to 55% of Mansfield's exported demand. The second largest amount of exported demand goes to Newark and Sherwood at 224 visits, equating to 21% of Mansfield's exported demand.
- 5.9 In Run 2 the number of visits exported from Mansfield to Ashfield decreases, but increases from Mansfield to Newark and Sherwood (see Map 5.2). Ashfield accounts for 53% of Mansfield's exported demand, and Newark and Sherwood for 23%.
- 5.10 In Run 3 exported demand decreases to all the neighbouring local authorities and is the lowest to each area across the runs (see Map 5.3). This is because the new Water Meadows 2 has replaced the old Water Meadows Swimming and Fitness Complex and is more attractive to residents in Mansfield. The proportions of exported demand in Run 3 remain the same as in Run 2.
- 5.11 In Run 4 exported demand to Ashfield increases significantly to 792 visits in the weekly peak period (see Map 5.4), but as a proportion of Mansfield's exported demand is lowest at 50%. Exported demand to all the neighbouring local authorities is the highest across the runs. This is because the closure of Rebecca Adlington Leisure Centre means that Run 4 has the smallest capacity in Mansfield.

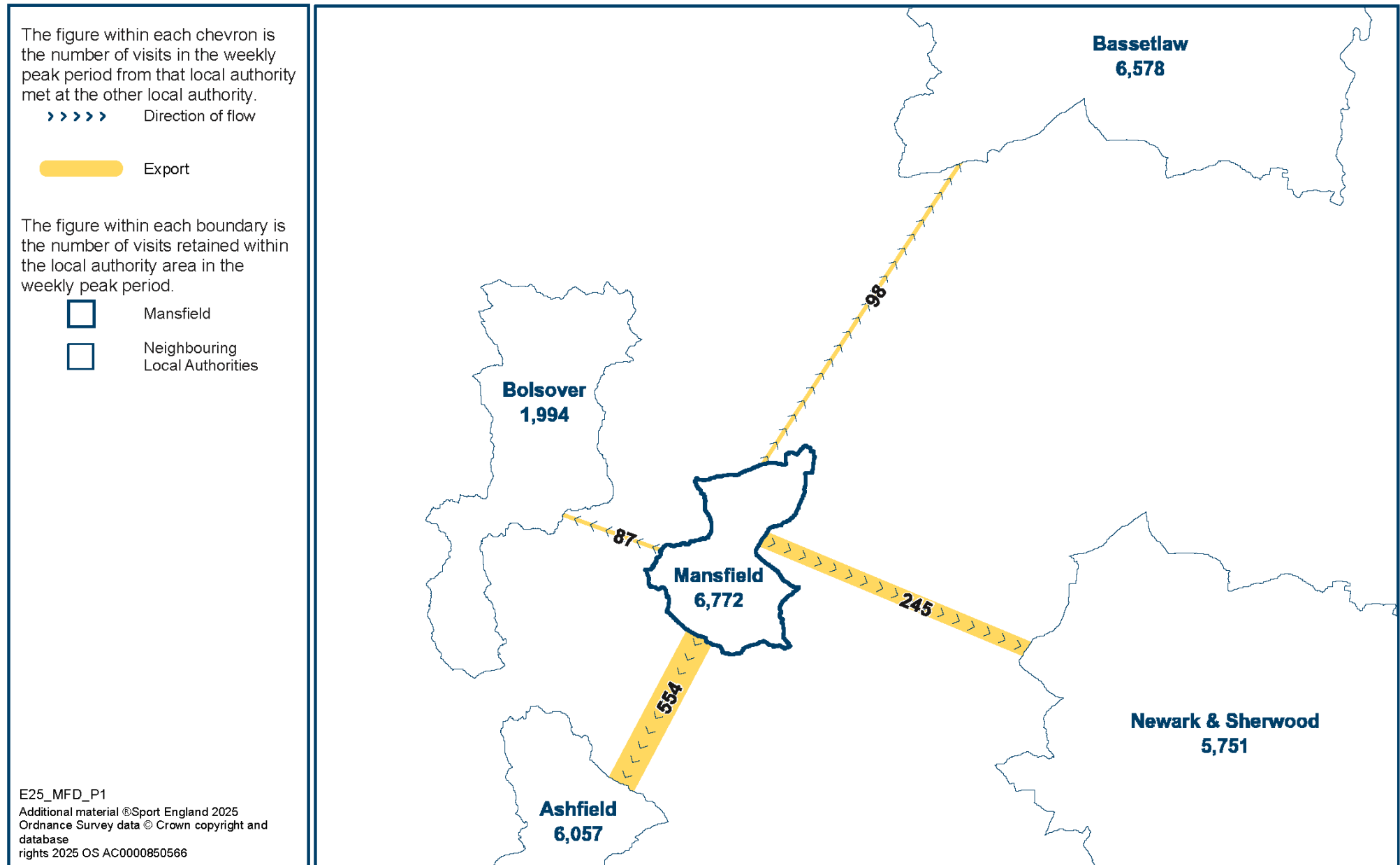
Map 5.1: Export of Mansfield Satisfied Demand for Swimming Pools in Run 1 (2025)



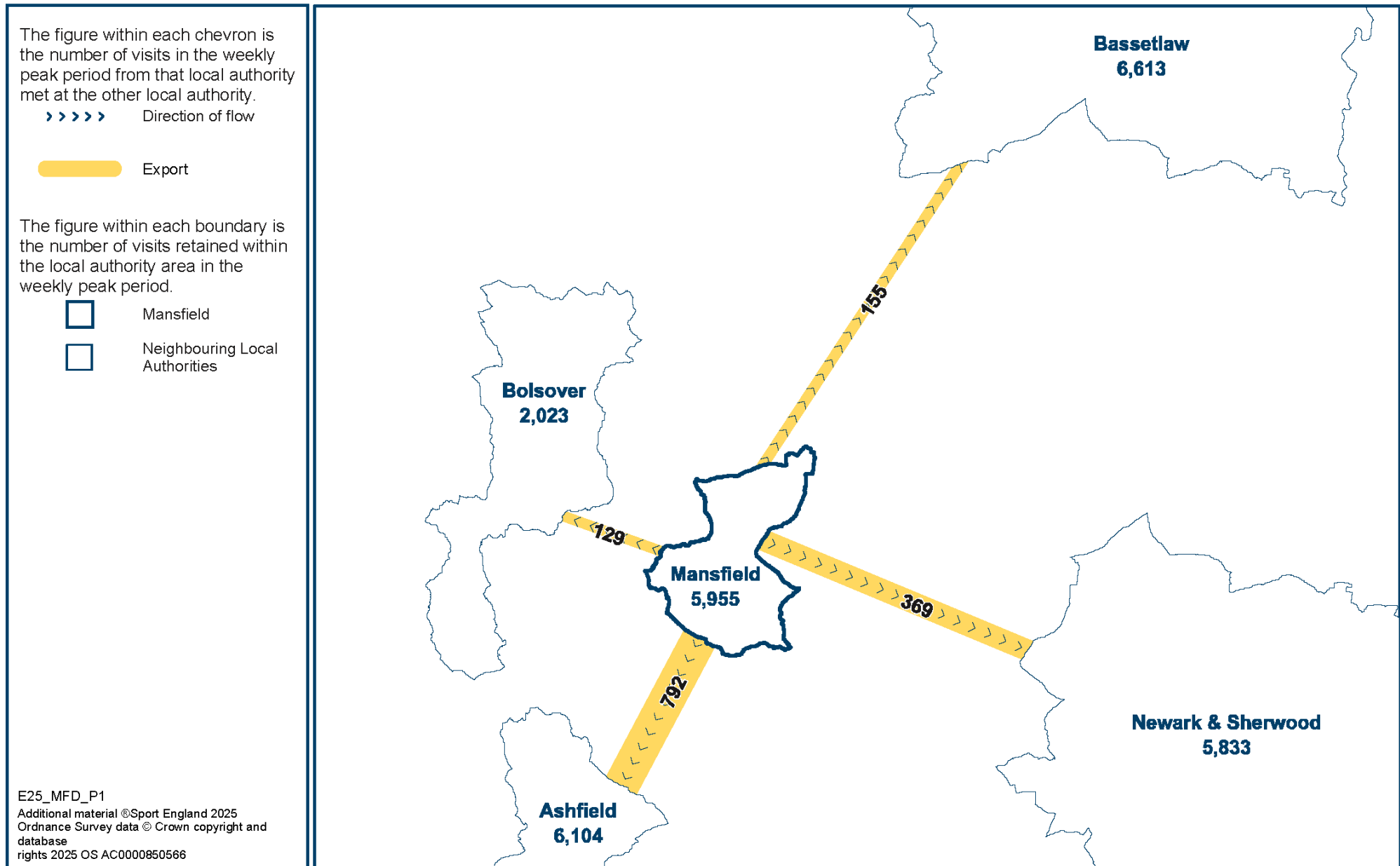
Map 5.2: Export of Mansfield Satisfied Demand for Swimming Pools in Run 2 (2043)



Map 5.3: Export of Mansfield Satisfied Demand for Swimming Pools in Run 3 (2043)



Map 5.4: Export of Mansfield Satisfied Demand for Swimming Pools in Run 4 (2043)



6 UNMET DEMAND FOR SWIMMING POOLS

Unmet demand in Mansfield is lowest in Run 1 at 58 sqm of water, and highest in Run 4 at 118 sqm of water.

Nearly all the unmet demand is too far from a facility. Unmet demand from lack of swimming pool capacity increases in Run 4, but only accounts for 28 sqm of water.

In all four runs, unmet demand is highest in the northeast of the District. Warsop Health Hub is located in this area, but was not included in the modelling.

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

Unmet Demand	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Number of visits unmet per week in peak period	355	402	414	716
Unmet demand as a % of total demand	5%	5%	5%	9%
Equivalent in sqm of water with comfort factor	58	66	68	118
% of 10% most deprived demand unmet	7%	7%	8%	12%
% of unmet demand due to:				
Facility too far away:	99%	95%	92%	76%
Without access to a car	91%	87%	84%	69%
With access to a car	9%	8%	8%	7%
Lack of facility capacity:	1%	5%	8%	24%
Without access to a car	0%	4%	7%	18%
With access to a car	0%	1%	1%	5%

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

1. There is too much demand for any particular swimming pool that is within its travel time area and there is a lack of capacity; or
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 5** is that Mansfield's unmet demand is highest in Run 4 at 9% of demand, equating to 118 sqm of water with a comfort factor included. Across the runs, between 76% and 99% of all unmet demand is too far from a facility. Unmet demand from lack of swimming pool capacity is highest in Run 4 at 24%, equating to 28 sqm of water with a comfort factor included.
- 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

- 6.4 Warsop Health Hub was not included in the modelling, but will meet unmet demand in the northeast of Mansfield.

Run 1

- 6.5 In Run 1 (see Map **6.1**), the greatest density of unmet demand per square kilometre in Mansfield is in the following areas:
- Market Warsop – 5 sqm of water (light green square)
 - Church Warsop – 2 sqm of water (medium blue square)
 - East of Mansfield town centre at Oak Tree Lane – 2 sqm of water (medium blue square)
- 6.6 The areas of greatest unmet demand across six square kilometres are as follows:
- Market Warsop – 11 sqm of water
 - East Mansfield town and Forest Town – 7 sqm of water
 - Ladybrook, west Mansfield town – 6 sqm of water
 - Mansfield Woodhouse – 5 sqm of water
- 6.7 Unmet demand is less than 1 sqm of water per square kilometre in Mansfield town centre and south Mansfield town (purples squares).

Run 2

- 6.8 In Run 2 unmet demand across Mansfield increases by 8 sqm of water to 66 sqm of water with a comfort factor included.
- 6.9 Unmet demand remains highest in the same areas (see Map **6.2**):
- Market Warsop – increases by 2 sqm of water to 13 sqm of water
 - East Mansfield town and Forest Town – increases by 1 sqm of water to 8 sqm of water
 - Ladybrook, west Mansfield town – increases by 1 sqm of water to 7 sqm of water
 - Mansfield Woodhouse – increases by 1 sqm of water to 6 sqm of water

Run 3

- 6.10 In Run 3 unmet demand across Mansfield increases by just 2 sqm of water and, therefore, there is no change in the geographical distribution of unmet demand across the District (see Map **6.3**).

Run 4

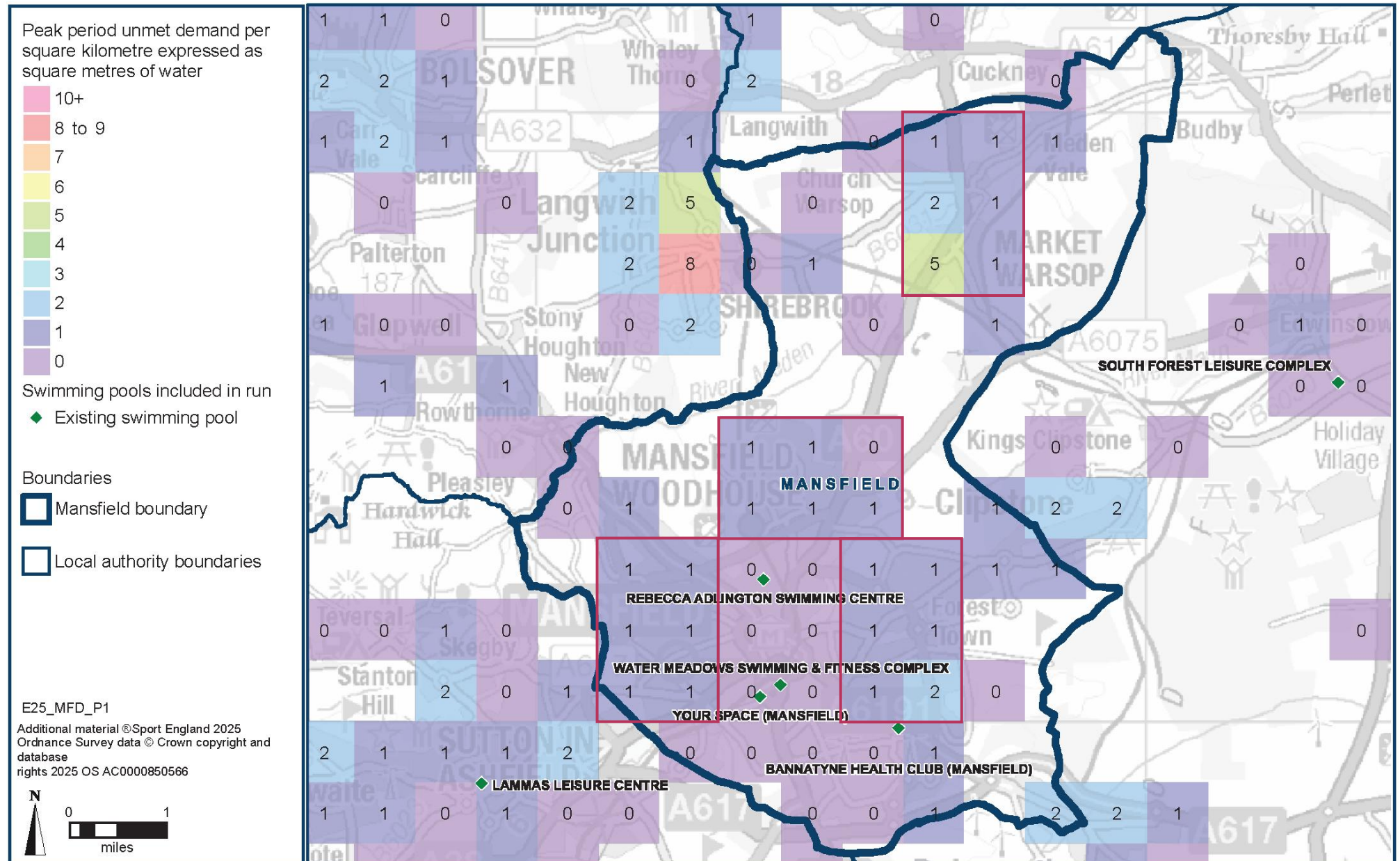
- 6.11 In Run 4 Rebecca Adlington Leisure Centre is closed and unmet demand across Mansfield increases by 50 sqm of water with a comfort factor included (see Map 6.4).
- 6.12 The greatest density of unmet demand per square kilometre in Mansfield is in the following areas:
- Market Warsop – 7 sqm of water (orange square)
 - East of Mansfield town centre at Oak Tree Lane – 4 sqm of water (dark green square)
 - Mansfield Woodhouse – 4 sqm of water (dark green square)
- 6.13 The areas of highest unmet demand across six square kilometres are as follows (see Map 6.2):
- Mansfield Woodhouse – increases by 10 sqm of water to 16 sqm of water
 - Market Warsop – increases by 2 sqm of water to 15 sqm of water
 - Ladybrook, west Mansfield town – increases by 6 sqm of water to 13 sqm of water
 - East Mansfield town and Forest Town – increases by 4 sqm of water to 12 sqm of water
 - Mansfield town centre – increases by 6 sqm of water to 7 sqm of water

Meeting Unmet Demand

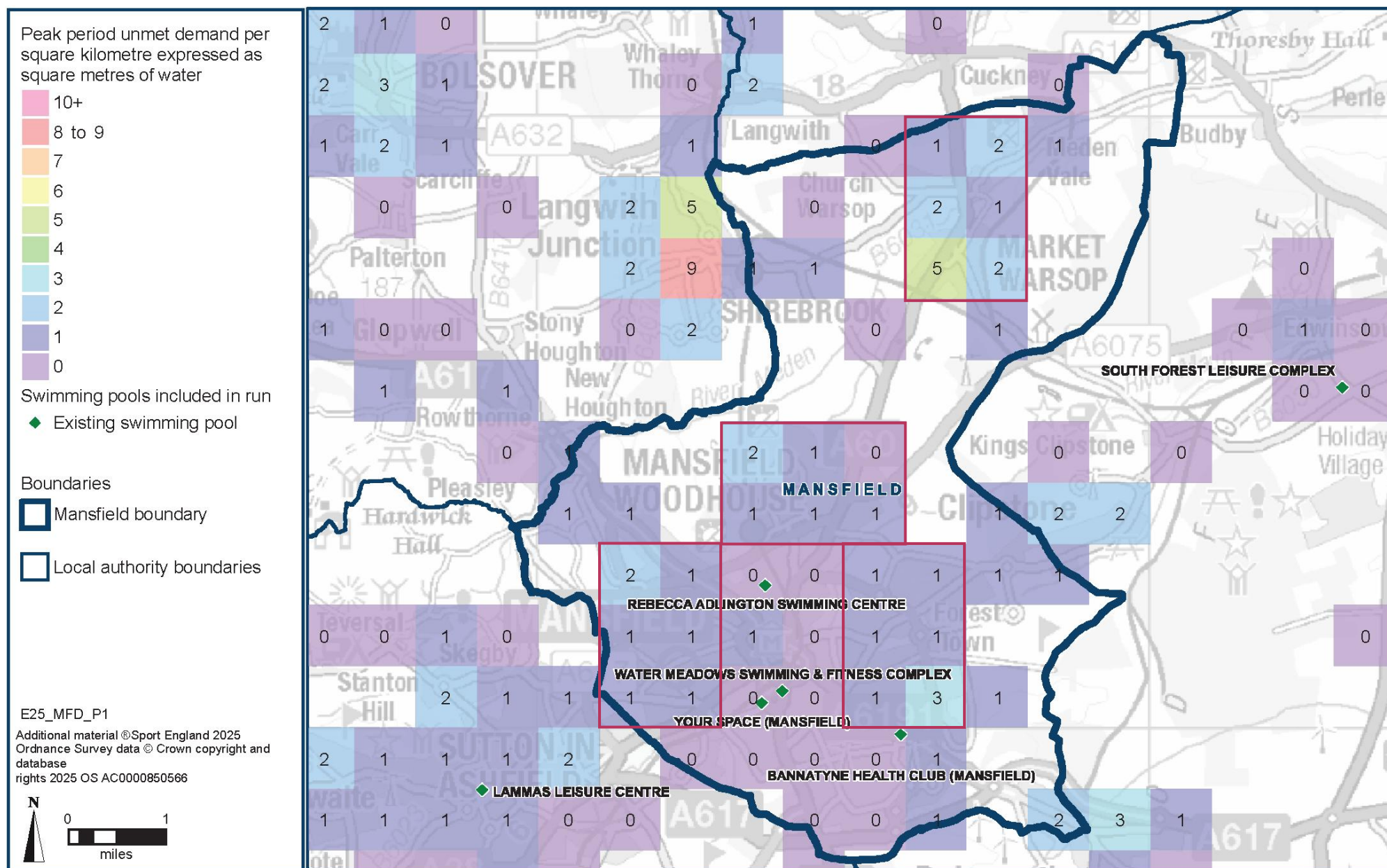
Definition of reachable unmet demand – Analysis of the spread of unmet demand shows the level of unmet demand that would be met by a potential new facility in any given location. This ‘reachable unmet demand’ is calculated for each one-kilometre grid square and figures are shown in the map.

- 6.14 In Run 4 the locations in Mansfield where the most unmet demand can be met are in the west of the District bordering Ashfield, at 92 sqm of water (pink squares in Map 6.5). These locations are accessible to Ashfield and Bolsover residents and will include unmet demand from these local authorities. This is an insufficient amount of unmet demand to consider the provision of a new swimming pool but is where modernised capacity should be increased.

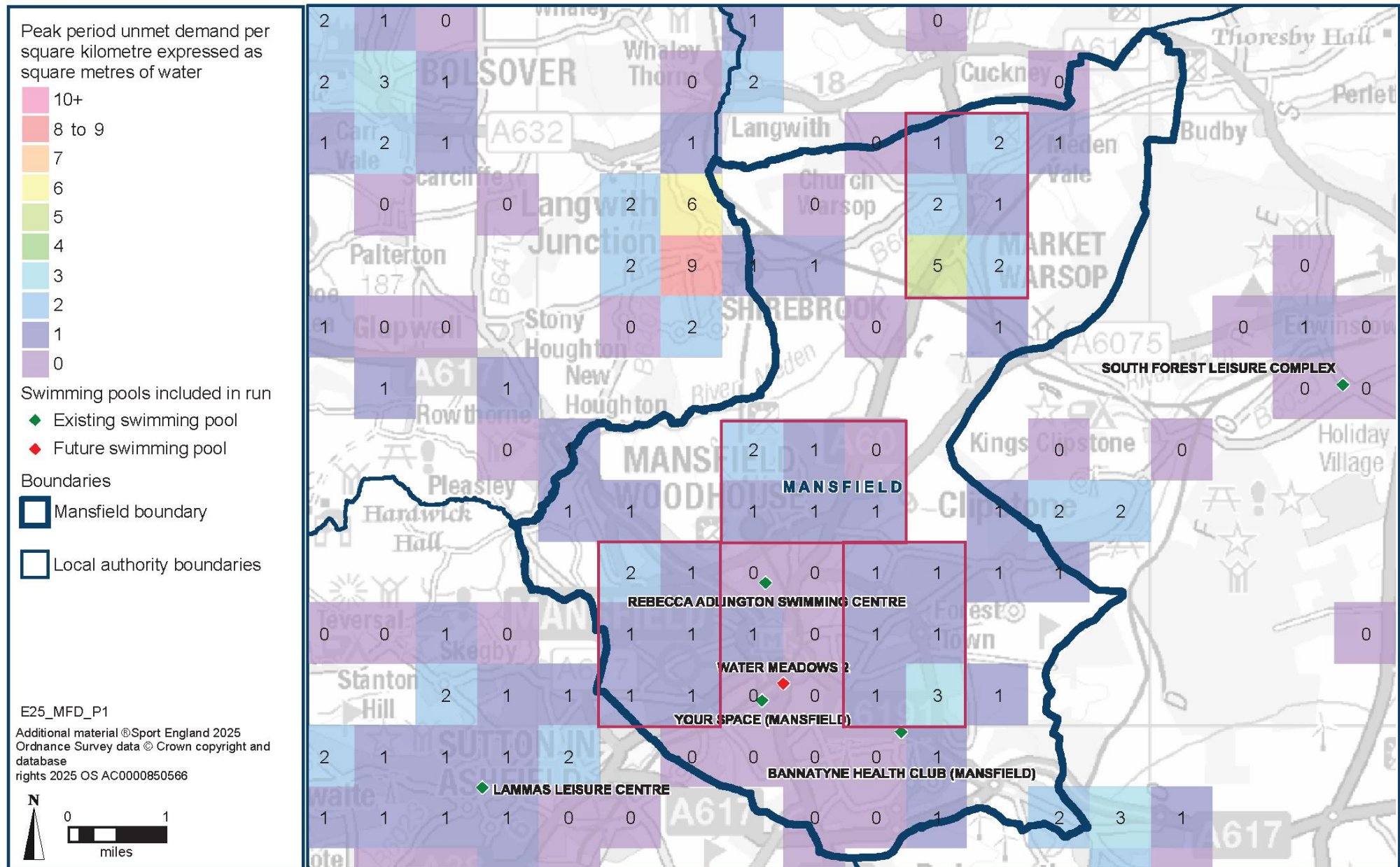
Map 6.1: Unmet Demand for Swimming Pools in Run 1 (2025)



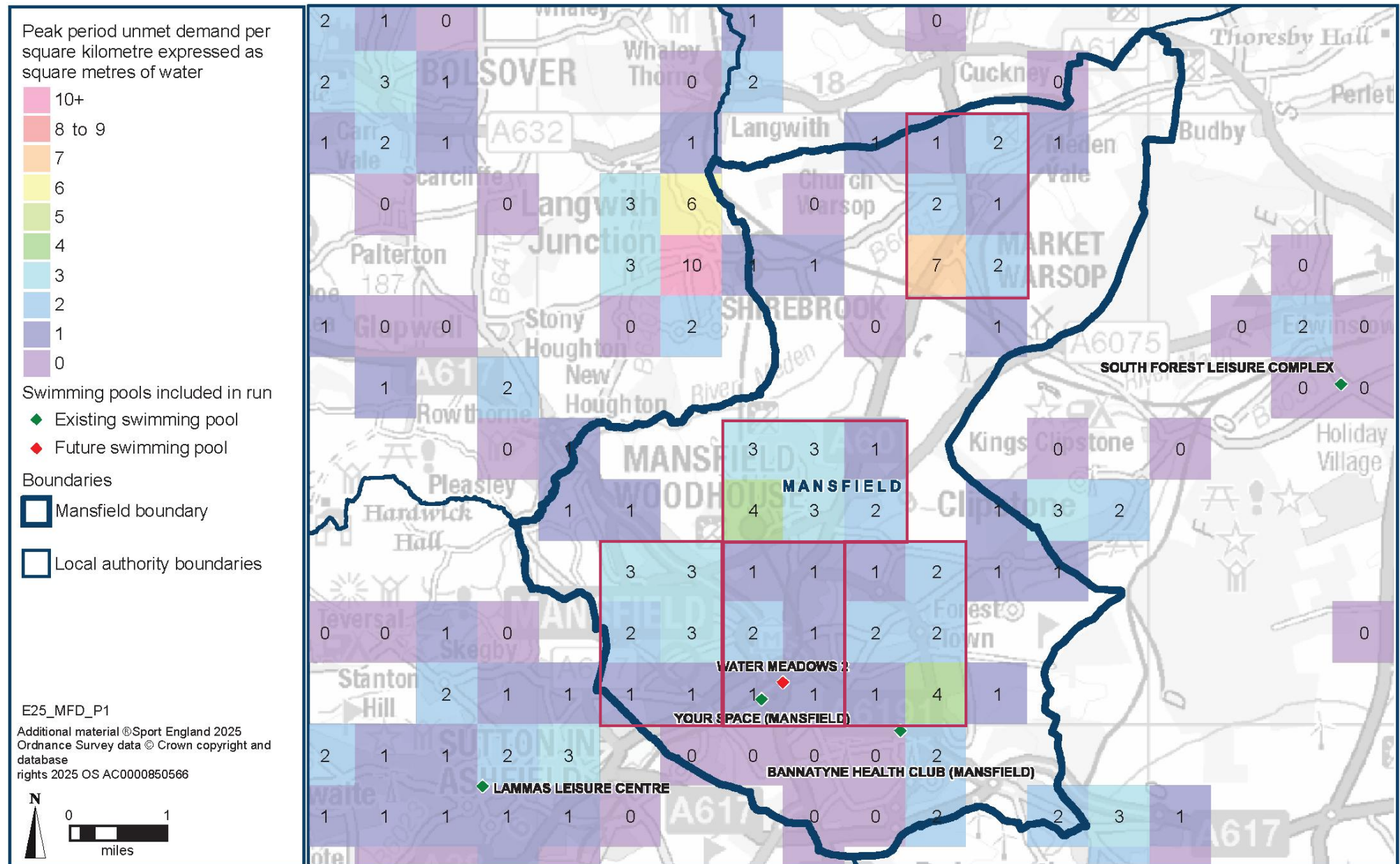
Map 6.2: Unmet Demand for Swimming Pools in Run 2 (2043)



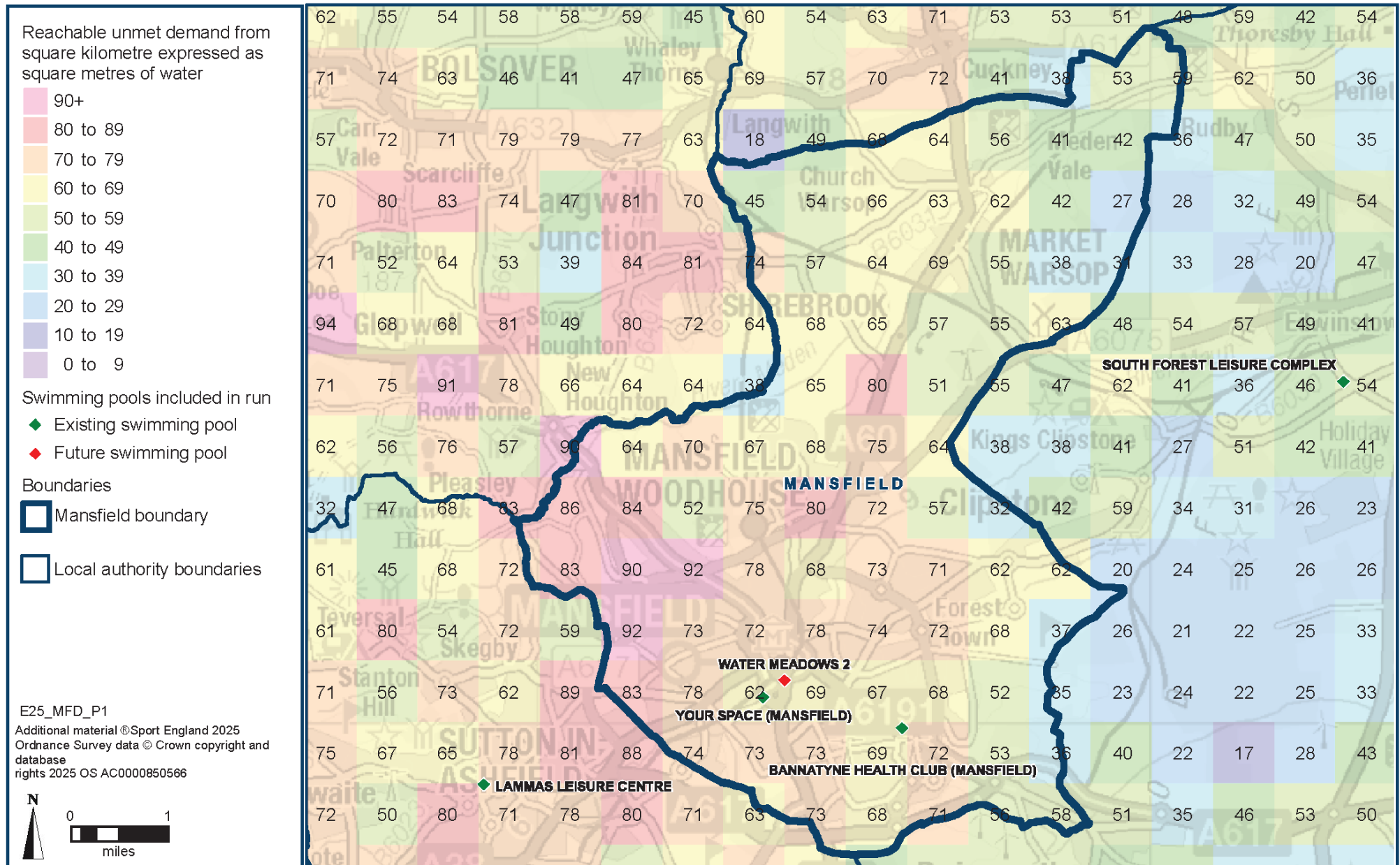
Map 6.3: Unmet Demand for Swimming Pools in Run 3 (2043)



Map 6.4: Unmet Demand for Swimming Pools in Run 4 (2043)



Map 6.5: Reachable Unmet Demand for Swimming Pools in Run 4 (2043)



7 USED CAPACITY OF FACILITIES

Rebecca Adlington Leisure Centre and Water Meadows 2 are estimated to be completely full in the runs where they are included. Water Meadows Swimming and Fitness Complex is estimated to be uncomfortably full in Runs 1 and 2.

Between 26% and 31% of the used capacity of Mansfield's pools is imported, and is highest in Run 3 and lowest in Run 4.

The largest amount of imported demand is from Newark and Sherwood in all runs.

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

Used Capacity	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Number of visits used of capacity in weekly peak period	8,720	9,626	9,745	8,089
% of overall capacity of pools used	77%	85%	94%	96%

Definition of used capacity – This is a measure of usage at swimming pools and estimates how well used or how full facilities are. The FPM is designed to include a 'comfort factor', beyond which the venues are too full. 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 **Key finding 6** is that the proportion of used capacity of Mansfield's swimming pools in the weekly peak period increases progressively from 77% in Run 1 to 96% in Run 4. Rebecca Adlington Leisure Centre and Water Meadows 2 are estimated to be completely full in the runs where they are included. Water Meadows Swimming and Fitness Complex is estimated to be uncomfortably full (over 70% of capacity used at peak times) in Runs 1 and 2.

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

Used Capacity	Run 1		Run 2		Run 3		Run 4		Provider	Peak Hours	Year Built	Year Refurb
	Visits	%	Visits	%	Visits	%	Visits	%				
Rebecca Adlington Leisure Centre	1,929	100%	1,938	100%	1,938	100%	-	-	Public	28/24	1933	2014
Water Meadows Swimming and Fitness Complex	4,626	72%	5,308	83%	-	-	-	-	Public	52.3 43.5 38.5	1990	
Water Meadows 2	-	-	-	-	5,448	100%	5,448	100%	Public	52.3	2032	
Bannatyne Health Club	722	52%	805	58%	785	56%	1,066	76%	Commercial	52.5	2001	
Your Space	1,443	92%	1,575	100%	1,574	100%	1,575	100%	Other	52.5	2001	

Site Utilisation Factors

- 7.2 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/other)

- 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. The 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 neighbouring local authority areas participate at a site in Mansfield, their usage becomes part of the used capacity of Mansfield's swimming pools.

Public Leisure Centres

- 7.3 The public leisure centres are estimated to be completely full or uncomfortably full due to their 'draw effect' and large capacities.
- Water Meadows Swimming and Sports Complex:
 - Meets the most visits in Runs 1 and 2 because of its large capacity
 - Located in the area of highest demand
 - Scope to increase availability and capacity of the leisure pool and teaching pool at peak times, which would reduce the proportion of used capacity to a more comfortable level
 - Water Meadows 2:
 - Meets the most visits in Runs 3 and 4, and more than Water Meadows Swimming and Fitness Complex
 - Modelled to open in 2032, and very attractive as the newest site
 - No scope to increase availability at peak times to reduce the proportion of used capacity
 - Rebecca Adlington Leisure Centre:
 - Located in an area of high demand
 - No swimming pool north of the centre (apart from Warsop Health Hub)
 - Scope to increase availability and capacity significantly of both pools at peak times, which would reduce the proportion of used capacity to a more comfortable level

Membership Sites

- 7.4 Of the two membership-based sites in Mansfield, Your Space has the highest proportion of used capacity at 92% utilisation in Run 1 and 100% in Run 2 to 4. It is the slightly larger of the two sites and is located in the area of highest demand. Both sites are newer than the existing public leisure centres.
- 7.5 Utilisation of Bannatyne Health Club ranges from 52% in the weekly peak period in Run 1 to 76% in Run 4.

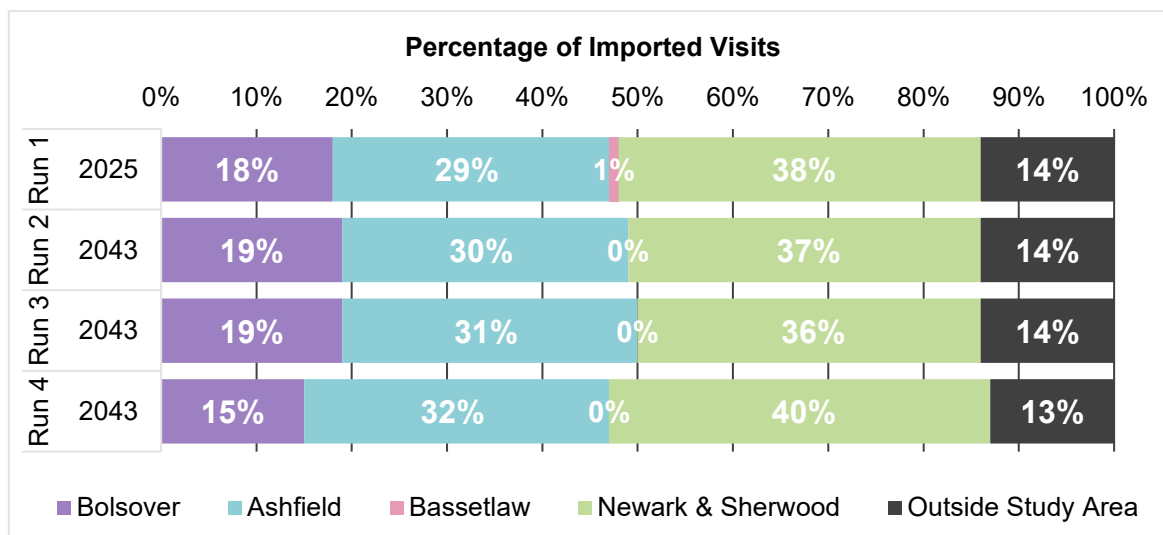
Imported Demand

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

Imported Demand	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Number of visits imported per week in peak period	2,587	2,884	2,973	2,134
As a % of used capacity	30%	30%	31%	26%
Difference between visits imported and exported	1,506	1,785	1,917	562

- 7.6 Run 3 has the largest amount of imported demand to Mansfield swimming pools in the weekly peak period at 2,973 visits. This accounts for the largest proportion of imported demand at 31% of the used capacity of Mansfield's pools, and is due to the draw and attractiveness of Water Meadows 2.
- 7.7 Run 4 has the fewest visits imported in the weekly peak period at 2,134, and accounts for smallest proportion at 26% of the used capacity of Mansfield's swimming pools. Run 4 has the smallest capacity and the fewest sites.
- 7.8 Mansfield is a net importer of demand in all four runs. The difference is highest in Run 3 at 1,917 more visits imported in the weekly peak period than exported, and lowest in Run 4 at 562 visits.

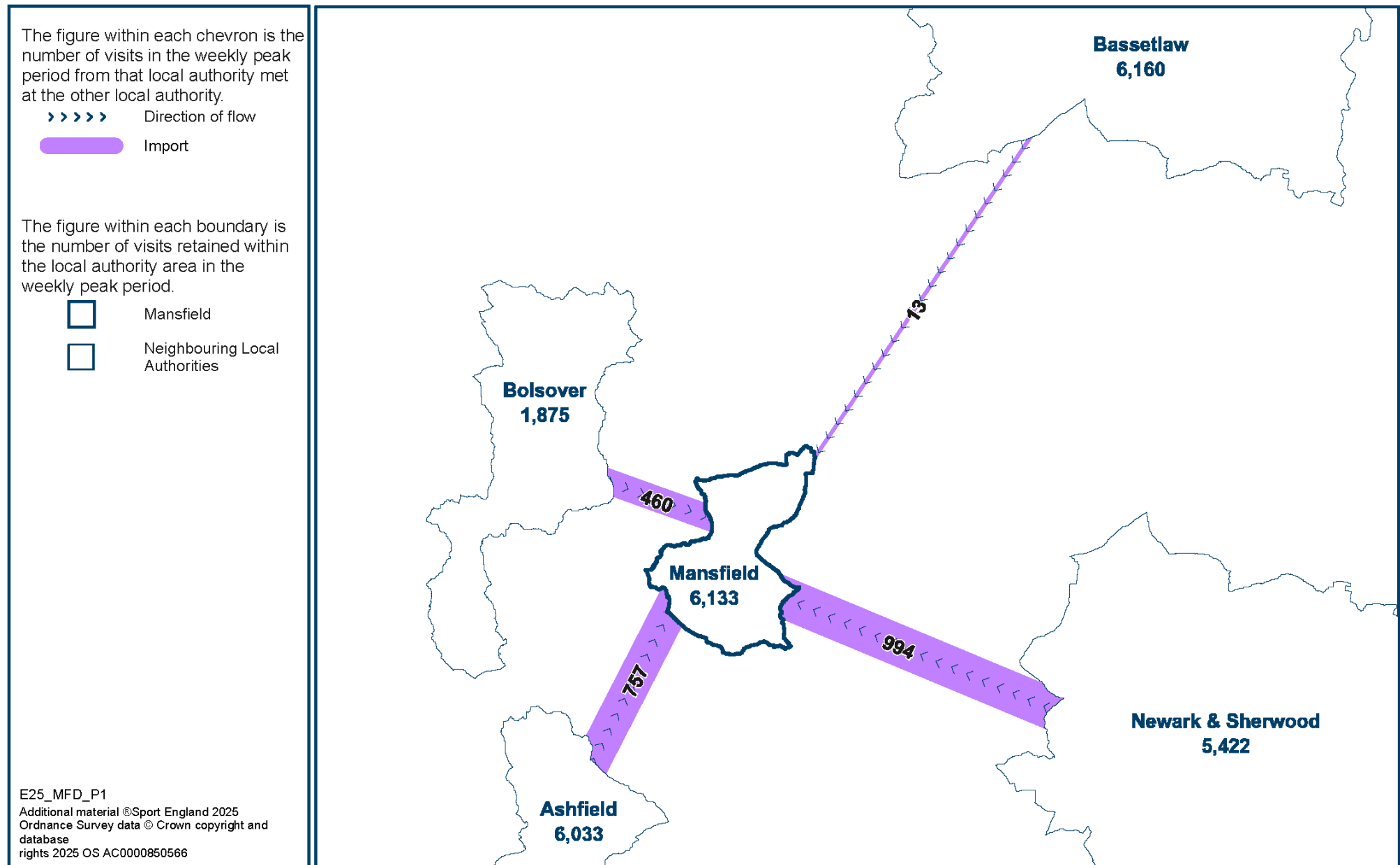
Chart 7.1: Percentage of Imported Visits by Origin and Run



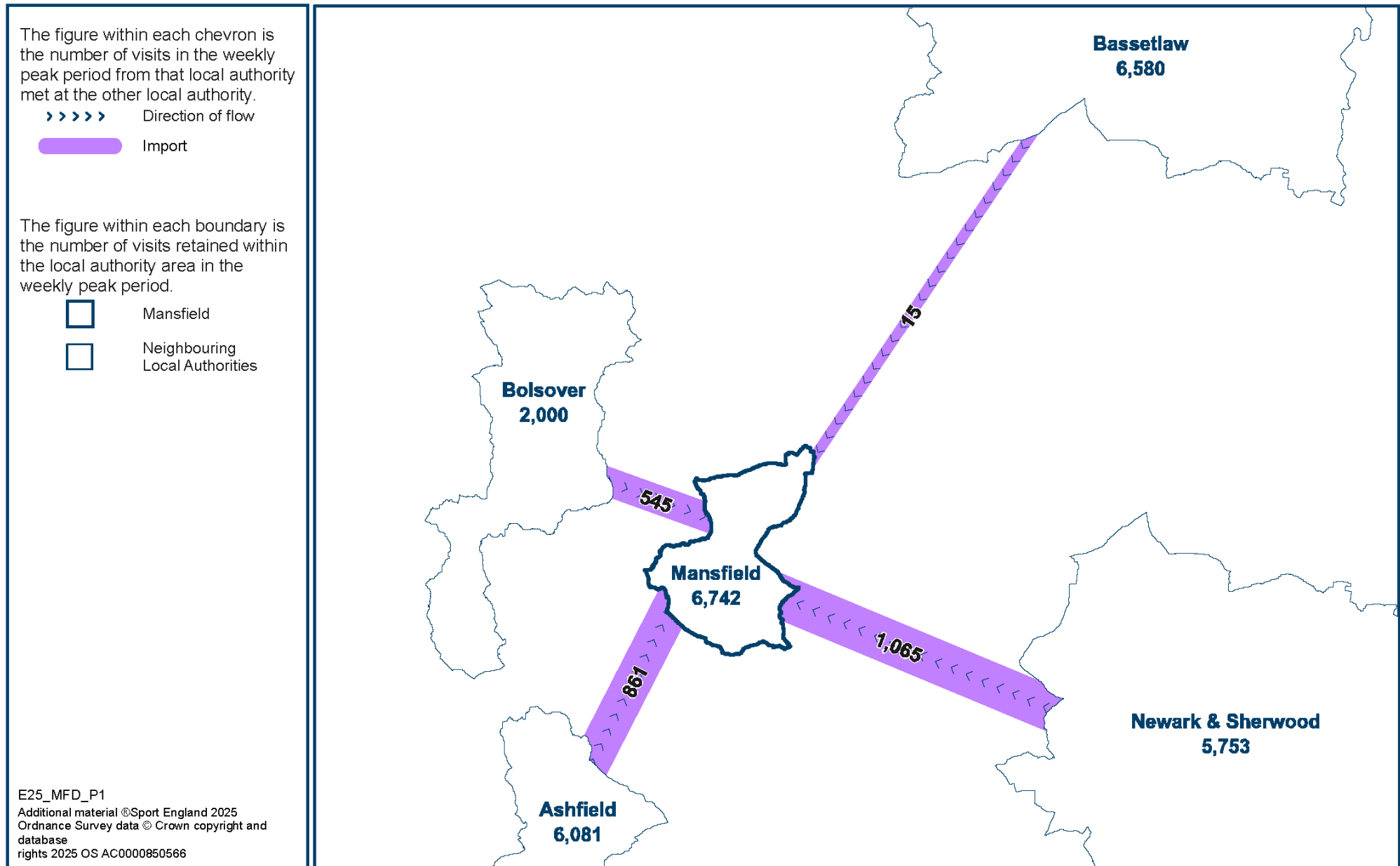
- 7.9 The most imported demand is from Newark and Sherwood, accounting for between 36% and 40% of Mansfield's imported demand across all runs. The second largest amount is from Ashfield, and accounts for between 29% and 32%.
- 7.10 In Run 1 imported demand from Newark and Sherwood is 994 visits in the weekly peak period (see Map 7.1), accounting for 38% of Mansfield's imported demand. Newark and Sherwood has the second highest demand in the study area in 2025.

- 7.11 Imported demand from Ashfield is 757 visits in the weekly peak period, accounting for 29% of Mansfield's imported demand. Ashfield has the second fewest number of swimming pool sites and the second smallest capacity, and the highest level of demand in the study area in 2025.
- 7.12 In Run 2 imported demand increases from all the neighbouring local authorities. Imported demand from Newark and Sherwood increases to 1,065 visits in the weekly peak period (see Map 7.2) but decreases to 37% of Mansfield's imported demand. Newark and Sherwood has the highest demand in the study area in 2043. Imported demand from Ashfield increases most to 861 visits in the weekly peak period, equivalent to 30% of Mansfield's imported demand.
- 7.13 In Run 3 imported demand from Newark and Sherwood decreases by 1 visit in the weekly peak period (see Map 7.3), and is equivalent to 36% of Mansfield's imported demand. Imported demand from Ashfield increases by 50 visits to 911 visits in the weekly peak period, accounting for 31% of Mansfield's imported demand. Imported demand from Bolsover also increases.
- 7.14 In Run 4 imported demand to Mansfield decreases from all the neighbouring local authorities. The largest decrease is from Bolsover, a reduction of 253 visits to 317 visits in the weekly peak period (see Map 7.4). Newark and Sherwood accounts for 40% of Mansfield's imported demand.

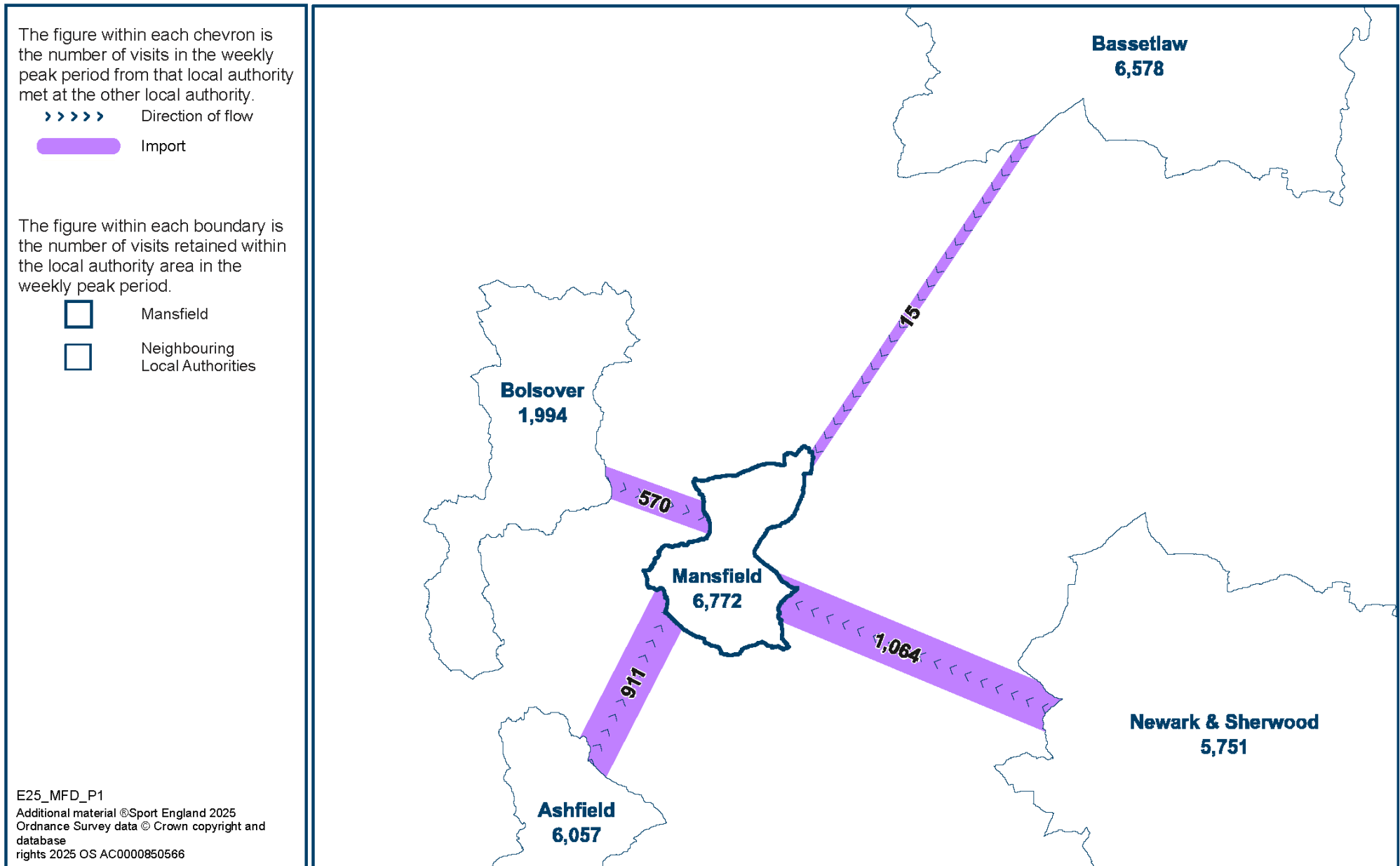
Map 7.1: Imported Demand for Swimming Pools to Mansfield in Run 1 (2025)



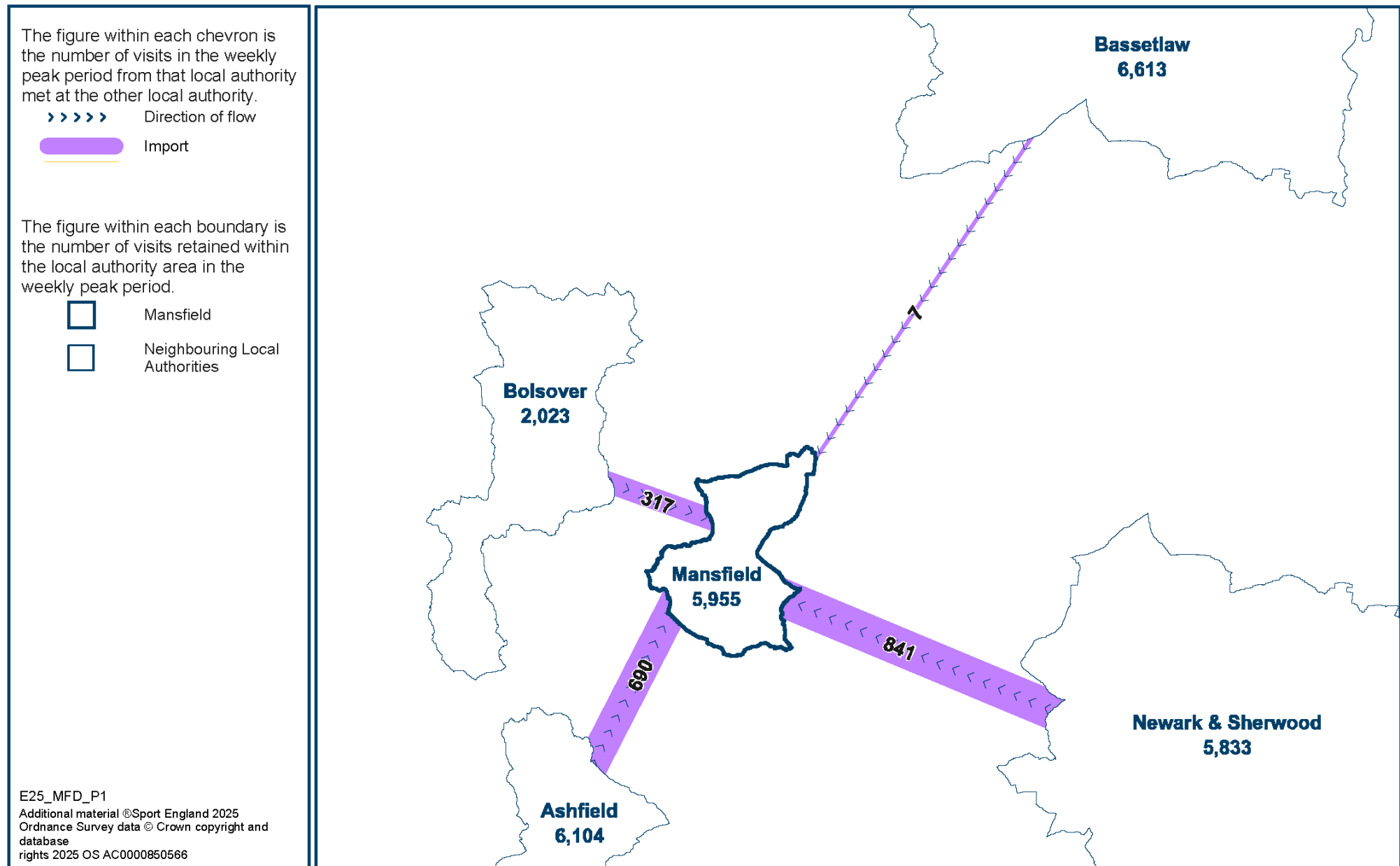
Map 7.2: Imported Demand for Swimming Pools to Mansfield in Run 2 (2043)



Map 7.3: Imported Demand for Swimming Pools to Mansfield in Run 3 (2043)



Map 7.4: Imported Demand for Swimming Pools to Mansfield in Run 4 (2043)



8 LOCAL SHARE OF FACILITIES

Across all four runs there is insufficient suitable provision that Mansfield's demand can access.

In Runs 1 and 2 Mansfield has the highest provision of water space per 1,000 population across the study area. In Run 3 Mansfield has the joint highest provision with Bassetlaw, and are both above the regional and national averages. In Run 4 Mansfield has the second lowest provision in the study area after Bolsover, and is below the regional and national averages.

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

Local Share	Run 1	Run 2	Run 3	Run 4
Mansfield	2025	2043	2043	2043
Local share of swimming pools relative to demand in local area: <1 = poorer, >1 = better	0.80	0.74	0.87	0.81

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 and 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.

Run 1

- 8.3 In Run 1 local share in Mansfield is 0.8, meaning that there is insufficient suitable provision that demand can access.
- 8.4 Local share is best in Berry Hill at 1.1, and also good in Forest Town and to the northeast of Mansfield Woodhouse (dark green squares in Map 8.1). Deprivation is low in these areas

and, therefore, residents can access the commercial swimming pools as well as the public leisure centre pools.

- 8.5 Local share is poorest to the southeast of the District, bordering Newark and Sherwood, at 0.6. (yellow square). This is a most deprived area and the nearest swimming pool is a commercial site.
- 8.6 Local share is also poor in a large area to the northwest of Mansfield town and around Market Warsop, at 0.7 (yellow squares). Rebecca Adlington Leisure Centre, located in northwest Mansfield town, is fully utilised, and Warsop Heath Hub is not included in the modelling.

Run 2

- 8.7 In Run 2 local share decreases to 0.74. Demand is greater and the available capacity is unchanged, but the pools have aged to 2043 and become less attractive.
- 8.8 Local share remains best in Berry Hill at 1.0 (dark green in Map 8.2). There are no other areas in Mansfield where there is sufficient suitable supply that demand can access.
- 8.9 Local share is poorest in the same area to the southeast of the District, and has decreased in west and east Mansfield Woodhouse, Warsop Vale and Market Warsop to 0.6 (yellow squares).

Run 3

- 8.10 Local share is best in Run 3 at 0.87. Water Meadows 2 has replaced Water Meadows Swimming and Fitness Complex and has very high attractiveness, and this improves local share across Mansfield (see Map 8.3).
- 8.11 Local share is best in Berry Hill at 1.2 (light blue square).
- 8.12 Local share is poorest in the same southeast area of the District, northwest Mansfield Woodhouse, Warsop Vale and Market Warsop, at 0.7 (yellow squares).

Run 4

- 8.13 In Run 4 local share decreases to 0.81 because Rebecca Adlington Leisure Centre is excluded.
- 8.14 Local share remains best in Berry Hill but has decreased to 1.1 (dark green square in Map 8.4).
- 8.15 Local share is poorest in the same area to the southeast of the District and has decreased to 0.6 (yellow square).
- 8.16 Local share is poor in the north and west of the District at 0.7 (yellow squares).

Comparative Measure of Provision

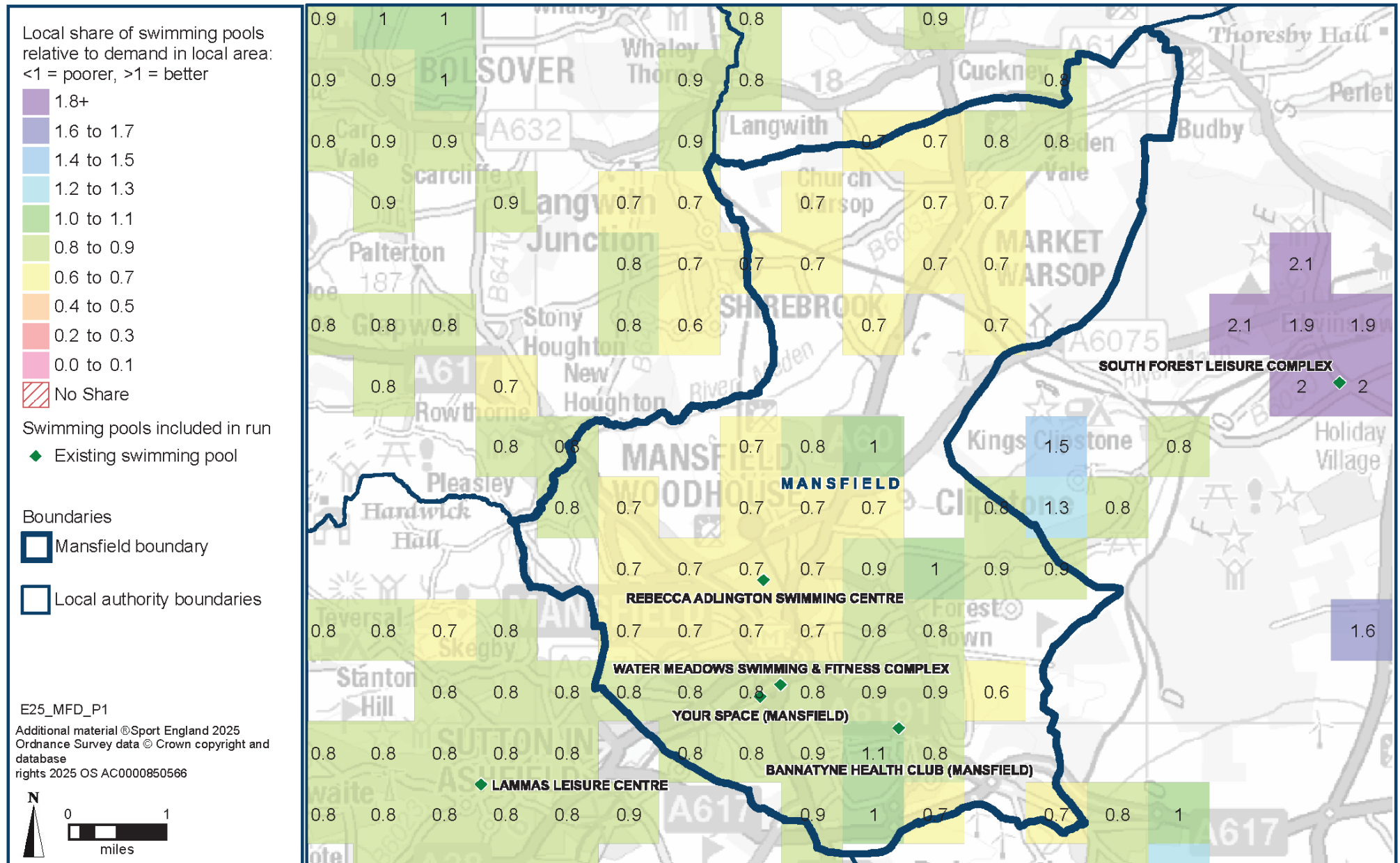
- 8.17 A comparative measure of swimming pool provision is total water space per 1,000 population.

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

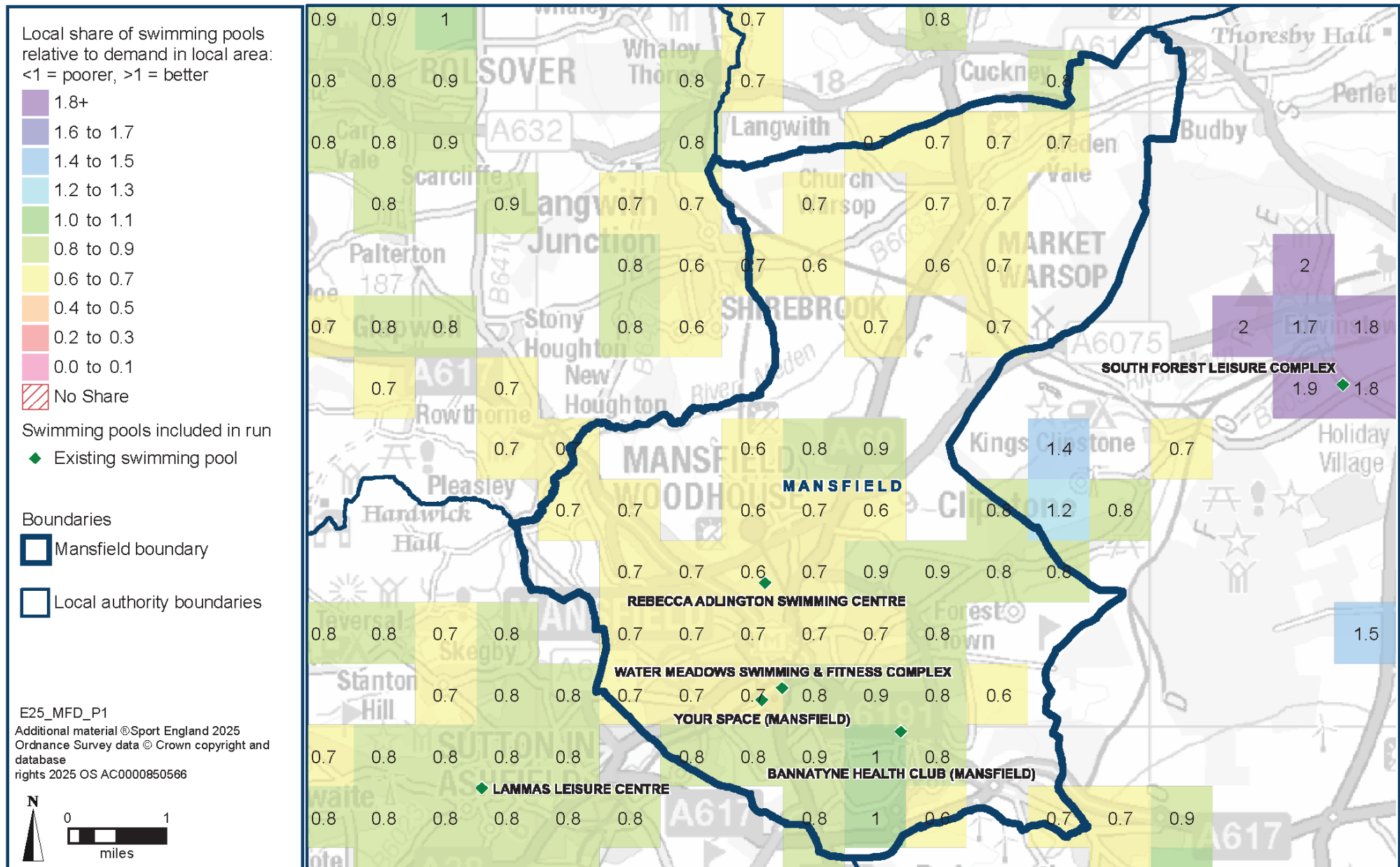
Sqm of Water per 1,000 population	Run 1	Run 2	Run 3	Run 4
Area	2025	2043	2043	2043
Mansfield	14	13	11	8
Bolsover	4	4	4	4
Ashfield	9	9	9	9
Bassetlaw	12	11	11	11
Newark and Sherwood	11	10	10	10
East Midlands Region	11	10	10	10
England	11	10	10	10

- 8.18 In Runs 1 and 2 Mansfield has the highest provision of water space per 1,000 population across the study area, at 14 sqm of water and 13 sqm of water respectively. Mansfield's provision is also higher than the regional and national averages in both runs.
- 8.19 In Run 2 Mansfield's provision per head of population decreases due to the increase in population to 2043.
- 8.20 Bolsover has the lowest provision at 4 sqm of water per 1,000 population in all four runs. Bolsover has two swimming pools at one site, and the lowest population in the study area.
- 8.21 In Run 3 Mansfield has the joint highest provision with Bassetlaw, at 11 sqm of water per 1,000 population. Mansfield's water space is reduced in Run 3 with the replacement of Water Meadows Swimming and Fitness Complex with the smaller Water Meadows 2. Mansfield's provision remains higher than both the regional and national averages.
- 8.22 In Run 4 Mansfield has 8 sqm of water per 1,000 population, the second lowest in the study area. Rebecca Adlington Leisure Centre is closed in this run, further reducing the water space in the District.
- 8.23 Bassetlaw has the highest provision in Run 4, which is unchanged.
- 8.24 In Run 4 Mansfield's provision is lower than both the regional and national averages of 10 sqm of water per 1,000 population.
- 8.25 **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.**
- 8.26 The supply and demand assessment for swimming pools in the Mansfield is based on the findings from the previous six headings analysed in this report.

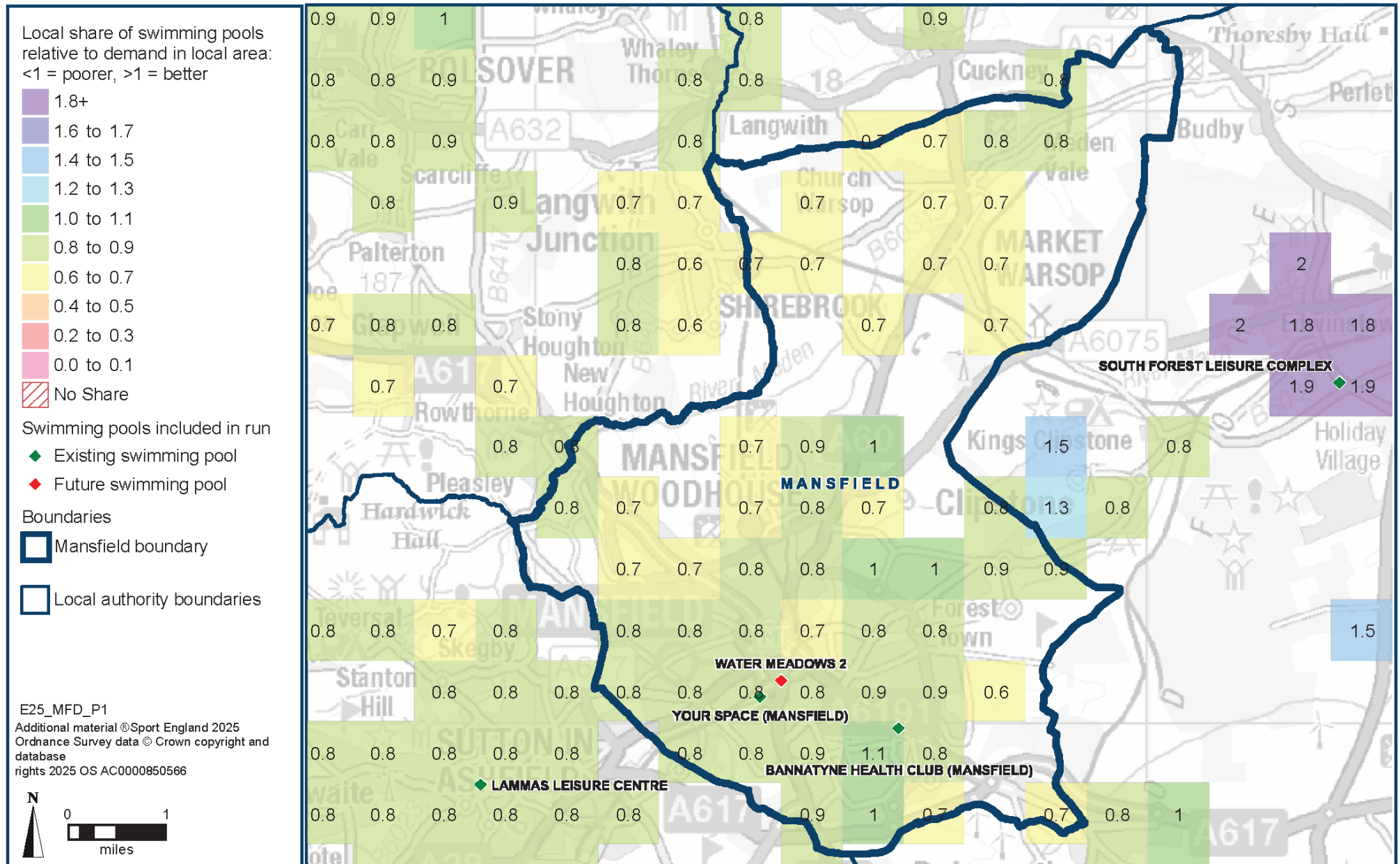
Map 8.1: Local Share of Swimming Pools in Run 1 (2025)



Map 8.2: Local Share of Swimming Pools in Run 2 (2043)



Map 8.4: Local Share of Swimming Pools in Run 4 (2043)



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
Dawn House School	Teaching	Principal pool too small
Swim	Main	Does not provide a balanced programme of activities
Meden Sports Centre	Main	Closed
Warsop Health Hub	Main	Principal pool too small

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

Site	Provider	Type	Dimensions (m)	Area (sqm)	Year Built	Year Refurb
Bolsover						
Go Active @ The Arc	Public	6-lane	25 x 13	325	2017	
Go Active @ The Arc	Public	Teaching	8 x 5	40		
Ashfield						
Hucknall Leisure Centre	Public	5-lane	25 x 12	300	1992	
Hucknall Leisure Centre	Public	Teaching	15 x 7	105		
Kirkby Leisure Centre	Public	4-lane	25 x 8.5	212.5	2022	
Lammas Leisure Centre	Public	6-lane	25 x 14	350	2008	
Lammas Leisure Centre	Public	Teaching	20 x 10	200		
Bassetlaw						
Bannatyne Health Club)	Commercial	4-lane	20 x 8	160	2006	
Bircotes Leisure Centre	Edu. (3rd party)	4-lane	20 x 8	160	1976	2010
Misterton Primary School & Nursery School	Edu. (in-house)	3-lane	20 x 7	140	1975	
Retford Leisure Centre	Public	6-lane	25 x 12.5	312	2008	
Retford Leisure Centre	Public	Teaching	12.5 x 6	75		
Worksop College	Edu. (in-house)	4-lane	23 x 9.5	218	1970	2004
Worksop Leisure Centre	Edu. (3rd party)	6-lane	25 x 12.5	312	2008	
Worksop Leisure Centre	Edu. (3rd party)	Teaching	12 x 7.5	90		
Newark & Sherwood						
Dukeries Leisure Centre	Public	4-lane	20 x 10	200	2021	
Newark Sports and Fitness Centre	Public	6-lane	25 x 12.5	312.5	2016	
Newark Sports and Fitness Centre	Public	Teaching	20 x 8.5	170		
South Forest Leisure Complex	Commercial	7-lane	25 x 16	400	1991	2007
Southwell Leisure Centre	Public	4-lane	25 x 10	250	1960	
Southwell Leisure Centre	Public	Teaching	11 x 8	88		

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

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

8 Used Capacity

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

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

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

9 Comfort Factor – Halls and Pools

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

10 Travel Times

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

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

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

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

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

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

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

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

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

Facility Inclusion Criteria

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%																											

