Greater Norwich Needs Assessment:

Needs Assessment 3: Swimming Pools

Final Report

Greater Norwich Area

October 2014

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Introduction

1. This report presents the findings from the Sport England Facilities Planning Model (FPM) analysis to test the implications of changes in swimming pool supply and demand across the Greater Norwich Development Area (Greater Norwich) and within each of the three local authorities of Broadland District, City of Norwich, South Norfolk District and all the neighbouring authorities to the Greater Norwich area.

2. The purposes of the analysis are to assess:

   - the extent to which the existing supply of swimming pools meets current levels of demand from the resident population across the Greater Norwich area and within each of the three authorities in 2014; and

   - the extent to which changes in the projected population change between 2014 and 2026 across the Greater Norwich area and within each of the three districts and the wider study changes the projected demand for swimming pools up to 2026.

3. The analysis is based on two separate analysis/runs which have been modelled. This report presents the findings. The specific runs which have been modelled are:

   - **Run 1** – **supply** and demand for swimming pools as at 2014 across the Greater Norwich area, within each of the three local authorities in Greater Norwich and the bordering authorities in the wider study area; and

   - **Run 2 – supply and demand for swimming pools as at 2026 across the Greater Norwich area,** within each of the three local authorities in the Greater Norwich area and the bordering authorities in the wider study area. Run 2 is based on the projected population growth and aging of the existing core resident change between 2014 – 2026.

Objectives of the facility planning model analysis and assessment

4. The objectives of the facility planning model analysis and assessment are to

   - inform the Local Planning process in each of the three local authorities of Greater Norwich and provide an evidence base on the implications of population change and housing growth allocations has on the supply and demand for swimming pools up to 2026.

   - provide a strategic assessment of the current and future need for swimming provision in 2014 and up to 2026 based on population change. This will assist each local authority to plan and assess what changes need to be made in swimming pool provision to meet the projected changes in demand.

For example is there a need to provide additional pools to met projected demand and if so where and at what scale? Or alternatively can the existing number, scale and location of swimming pools is of sufficient capacity meet the projected demand but an increase in demand up to 2026 will increase the costs of managing and maintaining buildings. So there could be requirements based on new demand to upgrade some existing pools to improve the quality of the existing pools and their effectiveness for both swimming – the customer experience and the costs of maintaining buildings.

5. If this is the case, then based on the population changes and locations of housing growth and the findings of the evidence base on future need and the quantitative, qualitative and accessibility findings from the analysis undertaken it can identify which pools should be improved and to cater for what level of future demand?

Sport England's Facility Planning Model

6. The Sport England facility planning model (fpm) is the industry benchmark standard for undertaking needs assessment for swimming pools. Its methodology is compliant with meeting the requirements for needs assessment as set out in paragraphs 73 – 74 of the National Planning Policy Framework.

7. The 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. The model is a tool to help to assess the strategic provision of community sports facilities in an area. It is currently applicable for use in assessing the provision of sports halls, swimming pools, indoor bowls centres and artificial grass pitches.

8. Sport England uses the fpm as one of its principal tools in helping to assess the strategic need for certain community sports facilities. The fpm has been developed as a means of:

- assessing requirements for different types of community sports facilities on a local, regional or national scale;
- helping local authorities to determine an adequate level of sports facility provision to meet their local needs;
- helping to identify strategic gaps in the provision of sports facilities; and
- comparing alternative options for planned provision, taking account of changes in demand and supply. This includes testing the impact of opening, relocating and closing facilities, and the likely impact of population changes on the needs for sports facilities.

9. Its current use is limited to those sports facility types for which Sport England holds substantial demand data, i.e. swimming pools, sports halls, indoor bowls and artificial grass pitches.

10. 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. For example, the fpm was used to help assess the impact of a 50m swimming pool development in the London Borough of Hillingdon. The Council invested £22 million in the sports and leisure complex around this pool and received funding of £2,025,000 from the London Development Agency and £1,500,000 from Sport England.

Report structure, sequence content and reporting of findings

11. Runs 1 and 2 are assessed separately and then the findings compared because this represents the strategic assessment of the current and future supply and demand for swimming. Run 1 is what it looks like now and Run 2 is what it could look like 2026 based on the projected changes in population.

12. Run 2 does integrate fully the aging of the core resident population from 2014 to 2026 and what the demand for swimming in 2026 will be based on this aging of the core resident population.

13. The study findings are reported in the sequence of;

    - what does it mean for the Greater Norwich area; and
    - what does it mean for each individual local authority in the Greater Norwich area? This is reported on in the sequence of Broadland, City of Norwich and South Norfolk.

14. The study report analyses the findings under the headings of – total supply, total demand, supply/demand balance, satisfied demand, unmet demand, used capacity (how full are the pools?) and relative share of swimming pools.

15. For each run the report sets out a table of findings for each heading and then provides a commentary on those findings.

16. The findings under each heading for the neighbouring authorities to each of the Greater Norwich authorities and so this includes – Breckland, Great Yarmouth, Mid Suffolk, North Norfolk and Waveney Districts are also set out in the tables. This allows (where valid to do so) the findings for the Greater Norwich authorities to be compared and commented on.

The Study Area

17. Describing the study area provides some points of explanation and a context for the report's findings.

18. Customers of swimming pools do not reflect local authority boundaries and whilst there are management and pricing incentives (and possibly disincentives) for customers to use sports facilities located in the area in which they live, there are some big determinants as to which swimming pools people will choose to use.

19. These are based on: how close the swimming pool is to where people live; the age and condition of the facility and inherently its attractiveness; other facilities within/on the site such as a fitness suite; personal and family choice; and reasons for using a particular facility, such as a particular activity going on.

20. Consequently, in determining the position for Greater Norwich and for each of the three authorities, it is very important to take full account of the swimming pools in all the neighbouring local authorities to Greater Norwich. In particular, to assess the impact of overlapping catchment areas of facilities located in Greater Norwich and those located

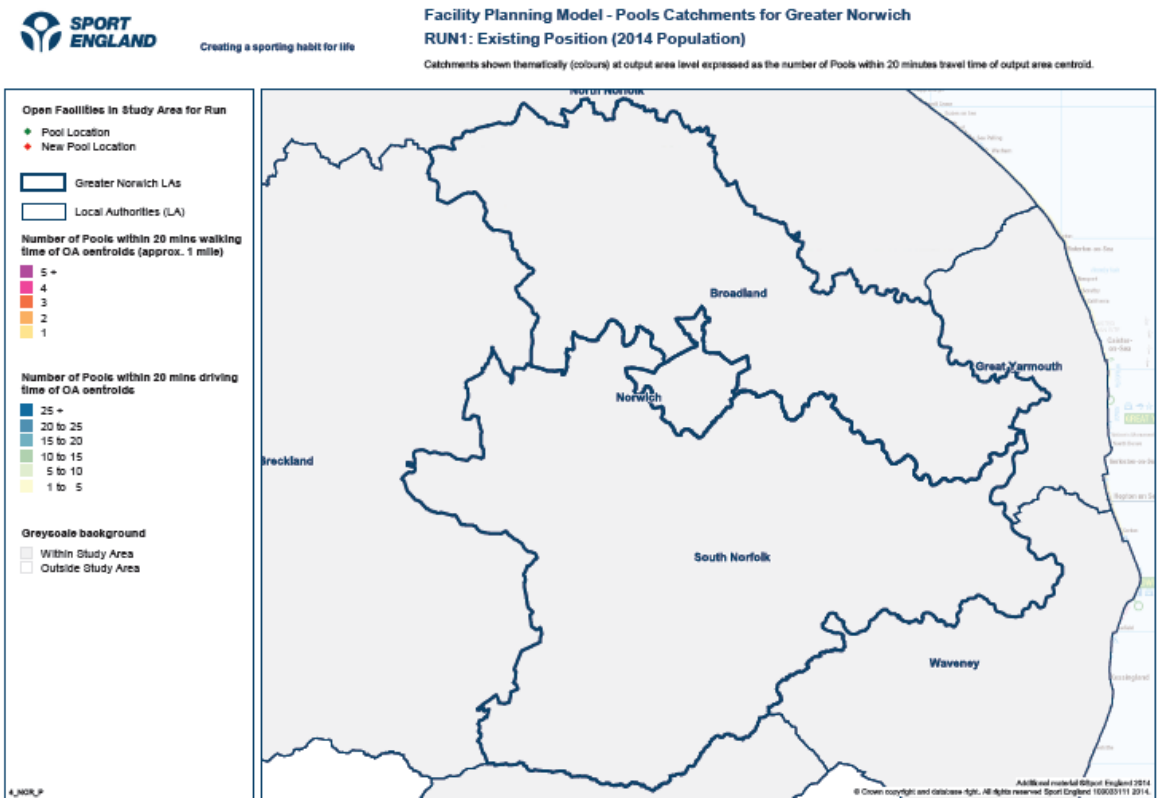
outside the authority. The nearest facility for some Greater Norwich residents may be located outside the authority (known as exported demand) and for some residents of neighbouring authorities their nearest swimming pool is inside Greater Norwich (known as imported demand).

21. Taking account of all these import and export effects is done by **establishing a study area** which places Greater Norwich at the centre of the study and assesses the import and export of demand into and out of the authority and reflects the location, age, condition and content of all the swimming pools.

22. In addition, this approach does embrace the National Planning Policy Framework approach of taking account of neighbouring authorities when assessing locally derived needs and development of a local evidence base for provision of services and facilities.

23. The study area for this assessment is the three authorities in Greater Norwich and the six neighbouring authorities. A map of the study area is set out below as Map 1. (Note: the place names and extent of the land area for North Norfolk and Mid Suffolk are not shown in full in the map but the analysis does include all the land area of both authorities).

Map 1: Study area for Greater Norwich and the bordering local authorities



Definition and listing of pools in the assessment

24. The database of swimming pools to be included in the study has been verified by officers of each local authority and the database for the Greater Norwich neighbouring authorities has also been checked and verified. Officers have made changes to the entries to reflect the basis of the pool supply used in the analysis. This work was undertaken in December 2013 – January 2014 and the analysis reflects the swimming pool supply as of then.

25. The assessment incorporates all operational indoor pools available for community use over 17m in length or which have a total area of 160 sq m of water whichever is the lower. The work on the Greater Norwich study has shown there to be considerable provision of swimming pools which are below these dimensions and are based on school sites. There are a total of 9 such pools.

26. These pools are an important and effective part of the supply base and they provide learn to swim programmes for curriculum purposes as well as community based learn to swim programmes. There is also some swimming club use of these pools and for sub aqua training and canoe safety teaching. Given these all round uses these pools despite being below the minimum threshold for being included in fpm assessments have been included in the Greater Norwich study for both the 2014 and 2026 assessments.

27. The list of all the swimming pools included in the assessment is set out as Appendix 1 to this report. Appendix 2 to this report is a full description of the facilities planning model.

28. Finally under definitions – the demand for and capacity/supply of pools is measured in visits per week in the peak period (vpwpp). Given the length of this reference and the frequency of it use in the report, it is now referred to as either visits or visits per week. An annual figure for throughputs refers to a modified total derived from these weekly visits.

Run 1: Greater Norwich supply and demand for swimming pools in 2014

29. The first run of the model is intended to describe and assess the current situation (2014) and incorporates the most up to date audit of swimming pools in the area, including those pools which are under construction or otherwise committed to development. It is based on the estimated population in the Greater Norwich area and the rest of the study area in 2014 based on the 2011 Census with the population projections updated to 2014 based on the ONS projections of change from the 2011 Census.

30. Run 1 provides the baseline assessment of the supply and demand for swimming provision in 2014.

Table 1: Total Supply Findings

Total Supply	Greater Norwich	Broadland	Norwich	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Number of pools	22	8	7	7	5	4	4	8	7
Number of pool sites	18	7	6	5	2	3	2	6	6
Supply of total water space in sqm	4505.4	1223.4	2123.8	1158.3	1135	851.5	617	1561	1451.5
Supply of publicly available water space in sqm (scaled with hrs avail in pp)	3935.1	1038.0	1962.5	934.6	892.6	775.4	558.9	1357.1	1244.0
Supply of total water space in VPWPP	34104	8996	17008	8100	7736	6720	4843	11762	10781
Waterspace per 1000	11.47	9.64	15.43	9.03	8.43	8.53	6.17	15.08	12.41

31. In run 1 there are;

- 22 swimming pools in Greater Norwich on 18 swimming pool sites. So at most sites there is only one swimming pool. So small scale independent sites with higher costs of managing and maintaining small scale individual pools;
- Broadland has the highest number of pools with 8 pools at 7 sites. However none of these pools are public provision for casual recreational swimming;

- the total amount of water space at the 18 pool sites across Greater Norwich is 4,505 sq m of water. However when assessed on the basis of water space available for public use this reduces to 3,935 sq m of water, so a reduction of 570 sq m of water or 12.6% of the total water space is not available for public use;

- total swimming pool capacity can cater for 3,935 visits in the weekly peak period;

- a benchmark measure is the amount of water space per 1,000 population. Based on this measure there is 11.4 sq metres of water per 1,000 population across Greater Norwich in 2014;

- this breakdown to 15.4 sq metres of water in Norwich – a very high supply created by the Sportspark pool complex at UEA. Broadland has 9.6 sq metres of water per 1,000 population and South Norfolk a similar provision at 9 sq metres of water;

- Table 2 overleaf sets out the details of the swimming pool supply across Greater Norwich in 2014. The key findings are:

  - 10 of the 18 pool sites are on school sites;

  - the average size of the 10 school swimming pools is 163 sq metres of water. So an average of around a 20m x 4 lanes pool. However this average is influenced by the largest school pools at Hewitt School and Norwich School for Girls both at 250 sq metres of water. (Note: for context a 25 m x 4 lane swimming pool is 212 sq m of water);

  - there are only 4 sites which are public pay and swim/casual recreational swimming pools. There are none in Broadland, two in Norwich and two in South Norfolk;

  - there is however the very extensive Sportspark which is the largest recreational public swimming facility and has 850 sq metres of water. So 21% of the total water space for public use is located on one site and there are only three other sites which provide for public recreational swimming; and

  - in many respects the pool providers, location, scale and dominance of commercial provision/access and low level public provision/access presents a very lop sided picture of pool provision across Greater Norwich.

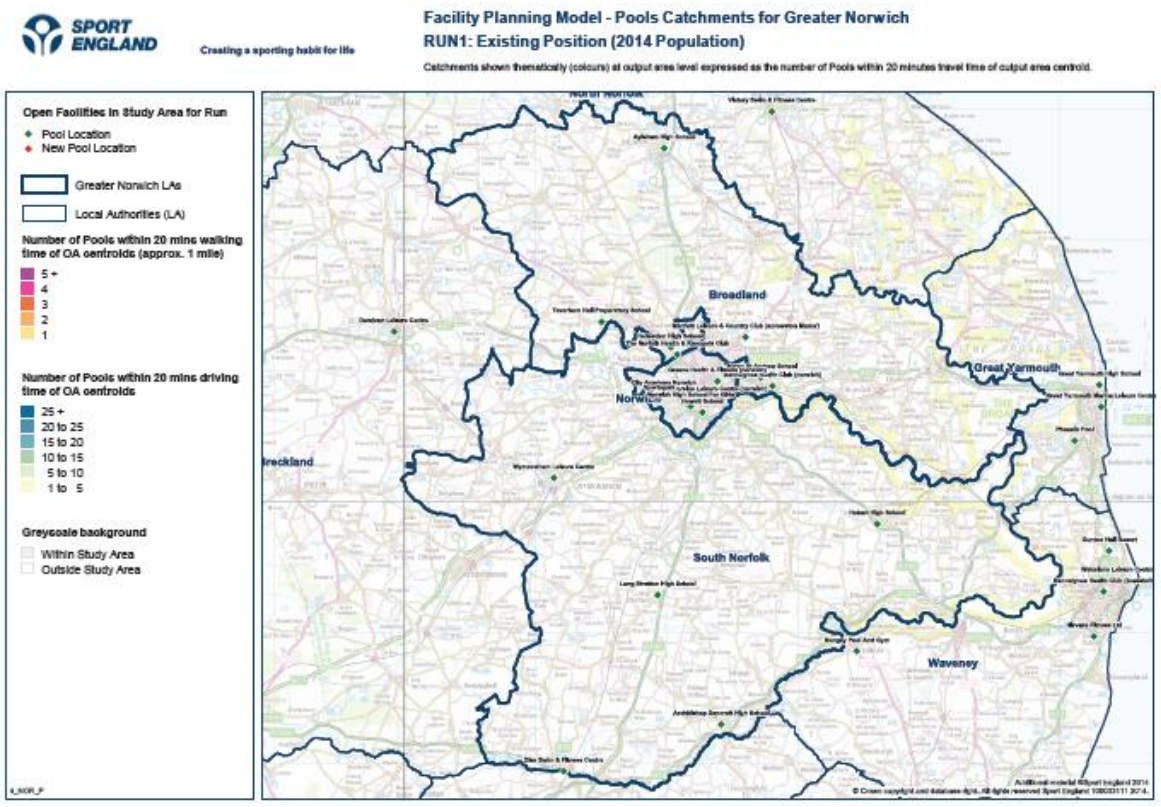
Table 2: Listing of swimming pools across Greater Norwich in 2014

NAME OF FACILITY	TYPE	AREA	SITE YEAR BUILT	SITE YEAR REFURB	PUBLIC/COMMERCIAL
NORWICH					
CITY ACADEMY NORWICH	Main/General	185	1960		P
GREENS HEALTH & FITNESS (NORWICH)	Main/General	250	2001		C
HEWETT SCHOOL	Main/General	250	1960	2006	P
NORWICH HIGH SCHOOL FOR GIRLS	Main/General	250	2000	2006	P
RIVERSIDE LEISURE CENTRE (NORWICH)	Main/General	338	2003		P
RIVERSIDE LEISURE CENTRE (NORWICH)	Learner/Teaching/Training	101			
SPORTSPARK	Main/General	850	2000	2008	P
SOUTH NORFOLK					
ARCHBISHOP SANCROFT HIGH SCHOOL	Main/General	188	1980	2007	P
DISS SWIM & FITNESS CENTRE	Main/General	313	1987	2004	P
DISS SWIM & FITNESS CENTRE	Learner/Teaching/Training	38			
HOBART HIGH SCHOOL	Main/General	112	1977		P
LONG STRATTON HIGH SCHOOL	Leisure Pool	90	1960	2008	P
WYMONDHAM LEISURE CENTRE	Main/General	338	1999		P
WYMONDHAM LEISURE CENTRE	Learner/Teaching/Training	81			
BROADLAND					
AYLSHAM HIGH SCHOOL	Main/General	92	1960	2010	P
BANNATYNES HEALTH CLUB (NORWICH)	Main/General	160	1999		C
HELLESDON HIGH SCHOOL	Main/General	136	1964	2009	P
MARRIOTT LEISURE & COUNTRY CLUB (SPROWSTON MANOR)	Leisure Pool	169	1991	2004	C
TAVERHAM HALL PREPARATORY SCHOOL	Main/General	135			P
THE NORFOLK HEALTH & RACQUETS CLUB	Main/General	325	2006		C
THE NORFOLK HEALTH & RACQUETS CLUB	Leisure Pool	6			
THORPE ST ANDREW SCHOOL	Main/General	200	1950		P

- The location of swimming pool sites across Greater Norwich and those in the rest of the study area is set out in Map 2 overleaf. (Note: it is acknowledged that the small land area of Norwich relative to the remainder of Greater Norwich and the study area does lead to a clustering of the pool names in the map. Plus mapping such a large land area does not provide as much clarity and detail when the maps are presented in the report.

A full set of maps will be made accessible to each local authority to view alongside the report itself.)

Map 2: Location of the swimming pools in Greater Norwich and in the wider study area run 1 2014



Access to swimming pools based on the 20 minute drive time catchment area

- Map 3 overleaf illustrates the number of pools which are accessible based on the 20 minute drive time catchment area of the pools in Greater Norwich and the wider study area. Areas shaded cream and green represent how many pools are accessible to the population living in each shaded area. The areas with no shading and illustrating the OS base are areas where the population living in those areas is outside the 20 minutes drive time of any swimming pool. The colour coded key is to the left of the map and the drive time colour code is the lower of the two colour codes.

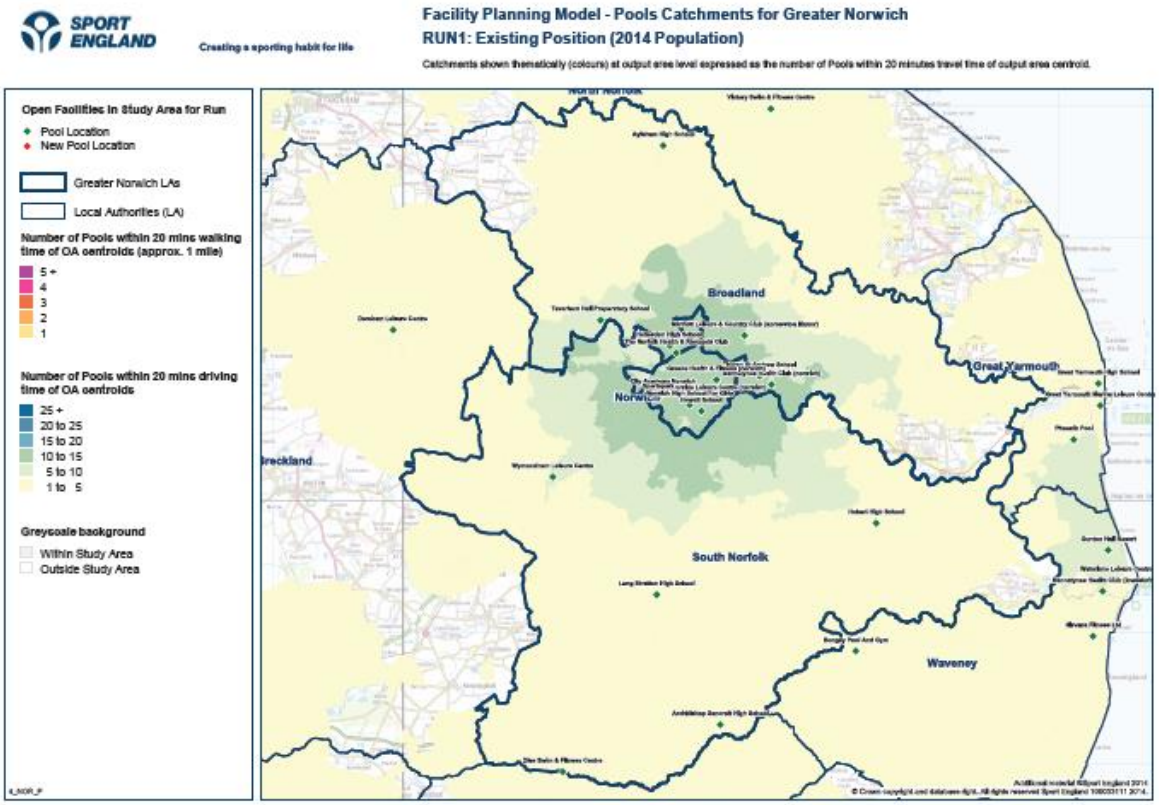
- Overall access to pools based on car travel is good.

- In most of the land area of Broadland and South Norfolk (shaded cream) residents in these areas have access to between 1 – 5 swimming pools based on a 20 minute drive time catchment of pool locations.

- In the areas shaded lighter green of these 2 authorities residents have access to 5 – 10 pools based on the car drive time catchment area.

- In the darker green areas of all three authorities and for virtually all of the Norwich land area residents have access to between 10 – 15 pools based on the car travel catchment.

Map 3: Access to swimming pools across Greater Norwich based on the 20 minute drive time catchment area of pools. Run 1 2014



Access to swimming pools based on the 20 minute/1 mile walk to catchment area

32. In terms of the walk to catchment area of a swimming pool, defined by Sport England through their research as 20 minutes or 1 mile, the findings are set out in Map 4 overleaf.

33. Not surprisingly the walk to catchment area is very tight to the actual pool locations and there is only a small area of each authority covered by the walk to catchment area. These are the areas shaded light brown.

34. The fpm assessment is that across Greater Norwich some 10.7% of all visits to pools are on foot, with 5.4% in Broadland, a much higher 19.6% in Norwich and 5.6% in South Norfolk (data set out under satisfied demand heading). So apart from Norwich the walk to catchment area is not a significant travel mode. In Norwich and as Map 4 shows but not too clearly around 50%

of the land area of Norwich is included in the walk to catchment area of a sports hall, virtually all on the eastern side of the authority.

Map 4: Access to swimming pools across Greater Norwich for 20 minutes/1mile walk to catchment area. Run 1 2014

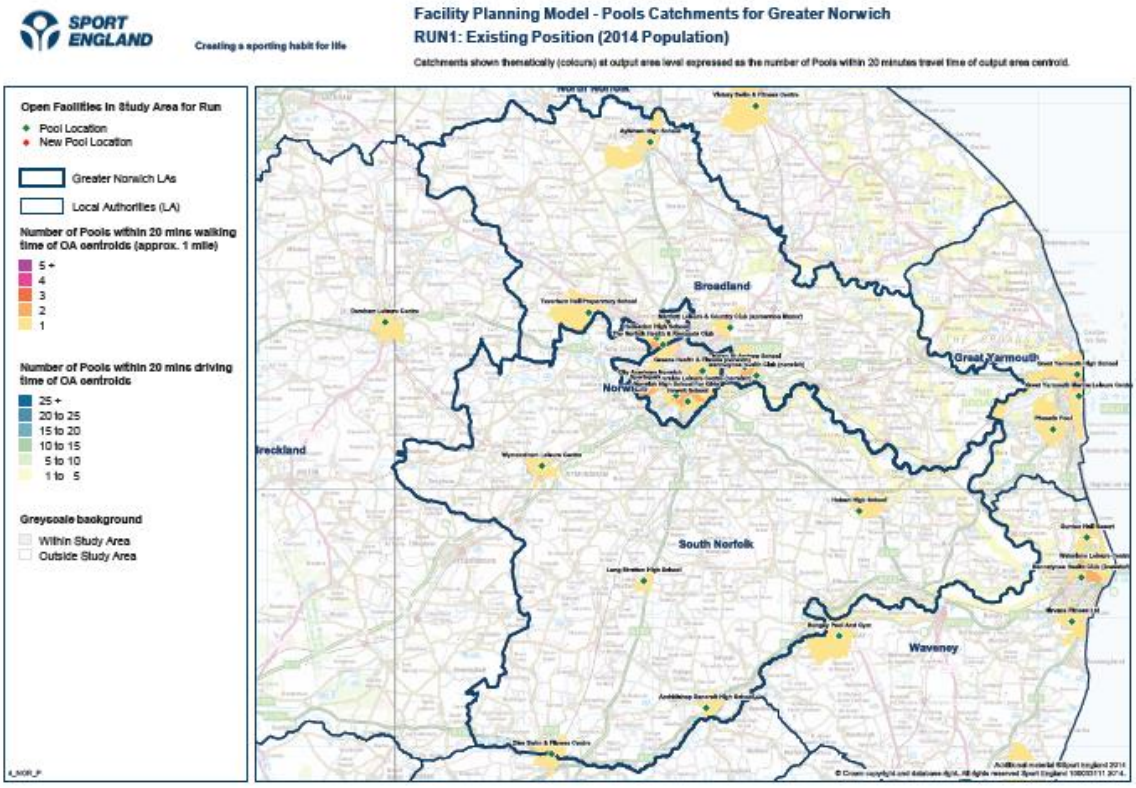


Table 3: Total Demand Findings

Total Demand	Greater Norwich	Broadland	Norwich	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Population	**392926**	126974	137675	128277	134691	99801	99981	103487	116994
Swims demanded – vpwpp	**24827**	7817	9032	7978	8289	6224	6217	6045	7120
Equivalent in waterspace – with comfort factor included	**4092.4**	1288.5	1488.8	1315.1	1366.4	1025.9	1024.8	996.4	1173.6
% of population without access to a car	**17.8**	10.9	32	11	15	26.6	10.7	15.6	20.9

35. In run 1 the total population across Greater Norwich in 2014 is 392,926 people. It is 126,974 people in Broadland, 137, 675 people in Norwich and 128,277 people in South Norfolk.

36. Population totals are the start point for then determining the percentage of the population who swim and how frequently. Given the quite narrow range of population totals in each authority it is reasonable to assume variations in the total demand for swimming and the subsequent levels of satisfied and unmet demand for swimming will be quite similar. Especially as the sporting profile of activity for each authority in terms of age bands, gender and sports/physical activities undertaken showed the profiles to be very similar across Broadland and South Norfolk.

37. In terms of the total demand generated for pools and based on the visits per week in the weekly peak period, the total demand across Greater Norwich is 24,827 visits. To underline the preceding paragraph this varies little in each authority with total demand being 7,817 visits in Broadland, 9,032 visits in Norwich and 7,978 visits in South Norfolk. So total demand across the three districts is within a range of 7,817 – 9,032 visits – quite a narrow range.

38. As shown under the supply heading there is good access to pools based on the drive time catchment area and the percentage of the population who do and do not have access to a car is important therefore. Across Greater Norwich it is 17.8% of the population who do not have access to a car. In Broadland it is 10.9% of the population who do not have access to a car, whilst in South Norfolk around 11% of the population do not have access to a car.

39. There is a much higher 32% of the population without access to a car in Norwich and so this means around one in three visits to pools by Norwich residents will be on foot. The level of access to pools for the Norwich population based on the walking catchment area is very important. Map 5 below shows the area of Norwich which are inside the walk to catchment area of at least one swimming pool (areas shaded light orange) and the areas inside the walk to catchment area of 2 swimming pools (shaded darker orange).

40. Around 50% of the land area of Norwich is inside the walk to catchment area of a swimming pool, albeit two of the pools are on school sites and one is a commercial pool and so the only public pools are Riverside and Sportspark. It is the areas to the NE and SW and a part of the centre of Norwich which are outside the walk to catchment area of any pool.

Map 5: Areas of Norwich inside and outside the walk to catchment area of a swimming pool

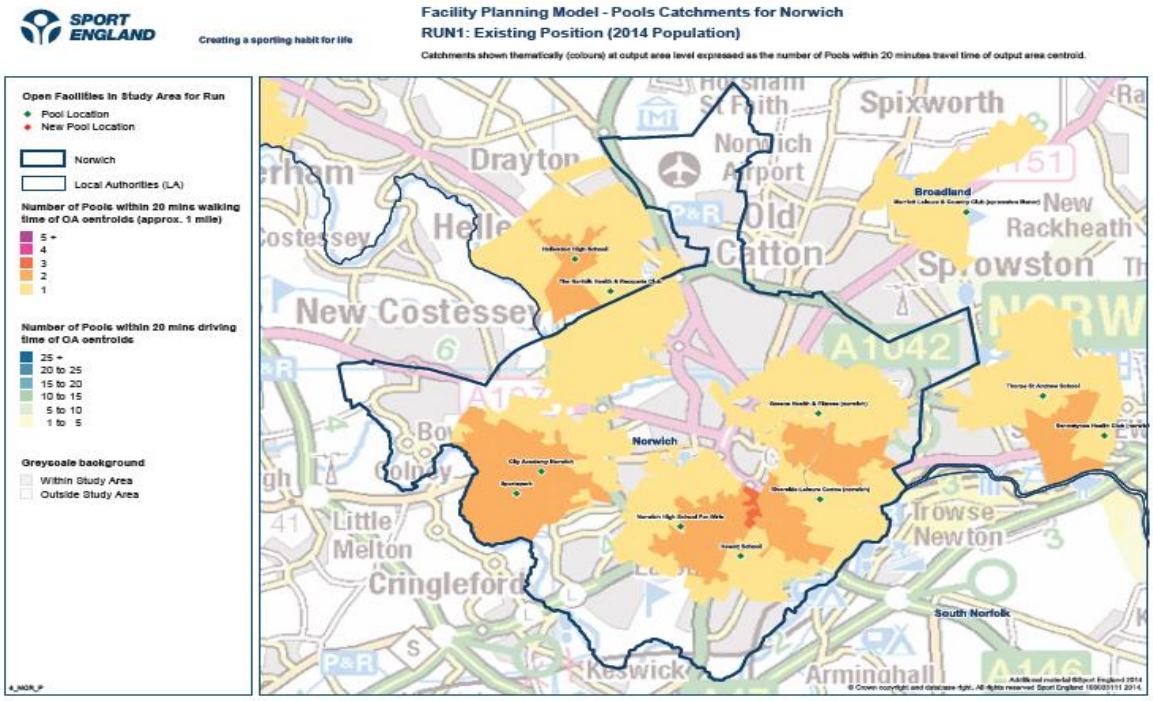


Table 4: Supply and Demand Balance Findings

Supply/Demand Balance	Greater Norwich	Broadland	Norwich	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Supply - Swimming pool provision (sqm) scaled to take account of hours available for community use	3935.1	1038.0	1962.5	934.6	892.6	775.4	558.9	1357.1	1244.0
Demand - Swimming pool provision (sqm) taking into account a 'comfort' factor	4092.4	1288.5	1488.8	1315.1	1366.4	1025.9	1024.8	996.4	1173.6
Supply / Demand balance - Variation in sqm of provision available compared to the minimum required to meet demand.	-157.36	-250.5	473.65	-380.52	-473.72	-250.58	-465.92	360.75	70.36

41. The supply and demand balance section of the report is the ONLY heading which does NOT report the findings based on the catchment area of swimming pools. Supply and demand balance provides a 'global' view of provision – it compares total demand generated within each of the local authorities in the study area with the total supply of pools within each authority in the study area. It therefore represents an assumption that ALL the demand for swimming in each authority is met by ALL the supply of swimming pools in each authority.

42. In short, supply and demand balance is NOT based on where the pools are located and their catchment area extension into other authorities. Most importantly supply and demand balance does NOT take into account the propensity/reasons for residents using facilities outside their own authority. The more detailed modelling based on the CATCHMENT AREAS of swimming pools is set out under Satisfied Demand, Unmet Demand and Used Capacity.

43. The reason for presenting the supply and demand balance is because some local authorities like to see how THEIR total supply of swimming pools compares with THEIR total demand for swimming. So supply and demand balance presents this comparison.

44. The supply and demand balance findings are reported as the total supply and total demand based in sq metres of water. Across Greater Norwich the total demand for swimming is for 4,092 sq metres of water, whilst the total supply is 3,935 sq metres of water. So for Greater Norwich there is small negative balance where demand exceeds supply by 157 sq metres of water; just over half of a 25m x 4 lane swimming pool.

45. In Broadland there is a negative balance of demand exceeding supply by 250 sq metres of water. South Norfolk also has a negative balance of 380 sq metres of water. Whilst in Norwich given the very extensive Sportspark pool complex and the extensive Riverside pool complex there is positive balance of sully exceeding demand by 473 sq metres of water. This represents some 24% of the total supply of water space for public use in Norwich.

Table 5: Satisfied Demand Findings

Satisfied Demand	Greater Norwich	Broadland	Norwich	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Total number of visits which are met	**22986**	7157	8488	7340	5678	5555	5200	4601	6139
% of total demand satisfied	**92.6**	91.6	94	92	68.5	89.3	83.6	76.1	86.2
% of demand satisfied who travelled by car	**82.02**	90.61	66.93	91.1	88.67	74.48	94.17	88.73	84.22
% of demand satisfied who travelled by foot	**10.79**	5.46	19.69	5.68	8.09	16.77	3.55	7.66	10.22
% of demand satisfied who travelled by public transport	**7.19**	3.92	13.38	3.23	3.24	8.76	2.28	3.61	5.56
Demand Retained	**21821**	4238	7502	3664	4630	5202	3025	3985	6008
Demand Retained -as a % of Satisfied Demand	**94.9**	59.2	88.4	49.9	81.5	93.6	58.2	86.6	97.9
Demand Exported	**1165**	2919	987	3677	1048	353	2175	616	131
Demand Exported -as a % of Satisfied Demand	**5.1**	40.8	11.6	50.1	18.5	6.4	41.8	13.4	2.1

46. Satisfied demand represents the proportion of total demand that is met by the capacity at the swimming pools from residents who live within the driving, walking or public transport catchment area of a pool. Across Greater Norwich some 22,986 visits or, a very high 92.6% of the total demand for swimming across the area is satisfied demand.

47. It hardly differs in each authority with 91.6% of total demand being satisfied in Broadland; 94% in Norwich; and 92% in South Norfolk.

48. This is a significant set of findings and starts to bring together the number, location and access to pools by each travel mode and then comparing these findings with the level of demand for swimming.

- Putting the earlier findings together with satisfied demand together with the location and catchment area of the pools means that across all of the Greater Norwich land area there is access to between 1 – 5 pools based on the 20 minute drive time catchment area of the pool locations; whilst within the Norwich city area and the boundaries with Broadland and South Norfolk it is a higher access of between 5 – 10 pools.

- The dominate travel mode to pools is by car with 82% of all visits to pools in Greater Norwich area by car. The range is 91% in Broadland and South Norfolk and a much lower 67% in Norwich. Hence the importance of the finding that around 50% of the land area of Norwich is inside the walk to catchment area of a swimming pool because the estimate is that one in five visits to pools in Norwich are by residents walking to a pool.

- So these findings when set alongside the total demand for swimming, where the demand is located and how much is located inside the catchment area of a swimming pool means that.

- 92.6% of the total demand for swimming by Greater Norwich residents can be met by the supply and location of the swimming pools.

49. The Greater Norwich average of 92.6% of total demand being satisfied demand does vary slightly across the authorities: In Broadland it is 91.6%; in Norwich it is 94% and in South Norfolk it is 92%.

50. In terms of each travel mode to pools in Broadland it is 90.6% by car, 5.4% by walking and 3.9% by public transport. In Norwich the travel modes are 67% by car, 20% by walking and 14% by public transport. Finally for South Norfolk the figures are 91% of al visits to pools by car, 5.6% by walking and 3.4% by public transport.

Retained and exported demand across Greater Norwich and each authority

51. There is a sub set of findings for satisfied demand and this is working how much of the total satisfied demand is met by pools located in Greater Norwich BASED ON THE CATCHMENT AREA of the Greater Norwich pools and where the Greater Norwich demand is located. This is known as retained demand.

52. Once we know how much of the Greater Norwich demand is retained at the pools the model is then able to identify how much of the Greater Norwich demand is met outside the area and where this demand goes to. This is known as exported demand.

53. Of course some of the Greater Norwich exported demand will "be traded" between each of the three authorities. The simplest way to set out the findings on retained and exported demand is by use a map which places each of the three districts at the heart and shows the boundary and location of the authorities to which demand is exported and the value of the exported demand in visits.

54. (Note: this map also sets out the amount of demand which is imported into each authority but this is reported on under the used capacity heading).

Broadland District

55. Map 6 overleaf is for Broadland District and the figure of 4,238 visits in the District map is the amount of satisfied demand from Broadland residents which is met at Broadland's pools. This represents 59.2% of the total Broadland demand for swimming in 2014 is estimated to be met by pools located in Broadland and it means some 40.8% of the Broadland demand for swimming is exported and met at pools located in neighbouring authorities.

56. The yellow chevron line from Broadland indicates the amount of Broadland demand which is exported and met in neighbouring authorities. The largest export of demand is to Norwich at 2,373 visits and which is 33% of the total Broadland satisfied demand for swimming.

57. After that some 270 visits or 4% of the Broadland demand for swimming is exported and met in North Norfolk. This is followed by 174 visits of 4% of the exported demand going to Great Yarmouth. Then 90 visits go to Breckland at 1% of the Broadland demand for swimming and only 13 visits go to South Norfolk.

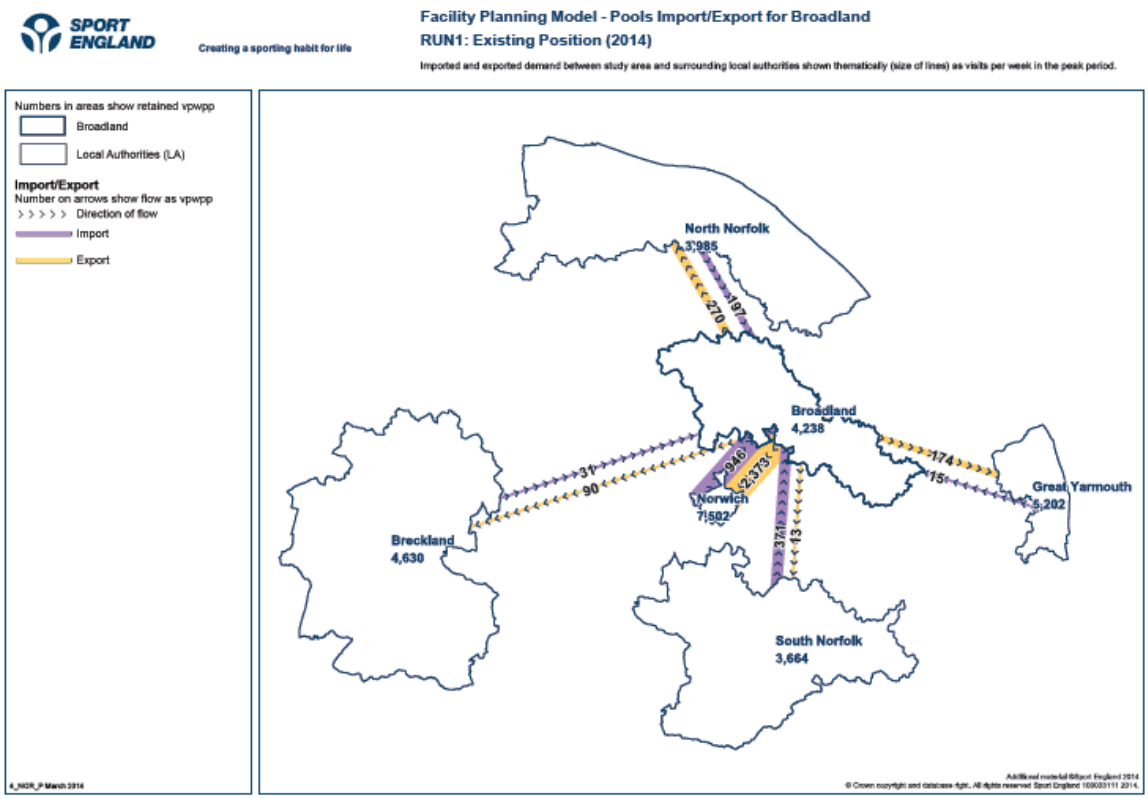
58. A summary of these findings is set out in Table 6 below. The key overall findings are that:

- Broadland is only retaining some 60% of its total satisfied demand for swimming at pools located in Broadland and it is exporting some 40% of its total satisfied demand;
- Broadland is able to achieve a very high 91% of its total demand for swimming being met because it is able to export 40% of its satisfied demand for swimming to pools located with a 20 minute drive time of Broadland and there is enough capacity at these pools to absorb this level of demand;
- the biggest export is to Norwich with 33% of the total Broadland satisfied demand for swimming being met in Norwich – almost one in three visits to pools by Broadland resident is met in Norwich – notably at Sportspark and Riverside pools; and
- the remaining 7% of Broadland's satisfied demand for swimming which is exported is to a combination of North Norfolk (4%) Great Yarmouth (3%) and Breckland (1%).

Table 6: Broadland retained and exported demand in visits and percentages in 2014

Name of authority	Broadland satisfied demand retained in Broadland in visits (percentage)	Broadland demand exported (visits) and where to	Broadland demand exported as % of total Broadland satisfied demand
Broadland	4,238 (60%)	2,919	40%
Norwich	-	2,373	33%
North Norfolk	-	270	4%
Great Yarmouth	-	174	2%
Breckland	-	90	1%
South Norfolk	-	13	-

Map 6: Retained and exported demand for swimming Broadland District 2014 Run 1



Retained and exported demand Norwich

59. The same set of findings on retained and exported are reported for Broadland can be set out for Norwich.

60. Map 7 overleaf is for Norwich and the figure of 7,502 visits in the District map is the amount of satisfied demand from Norwich residents which is met at pools located in Norwich. This represents 89% of the total Norwich demand for swimming in 2014. It means some 11% of the Norwich total satisfied demand for swimming is exported and met at pools located in neighbouring authorities.

61. Again the yellow chevron line from Norwich indicates the amount of Norwich demand which is exported and met in neighbouring authorities. Virtually all of the Norwich demand at 946 visits and which is just under 11% of the total Norwich satisfied demand is exported. After that some 39 visits are exported to South Norfolk and 2 visits are exported to Breckland.

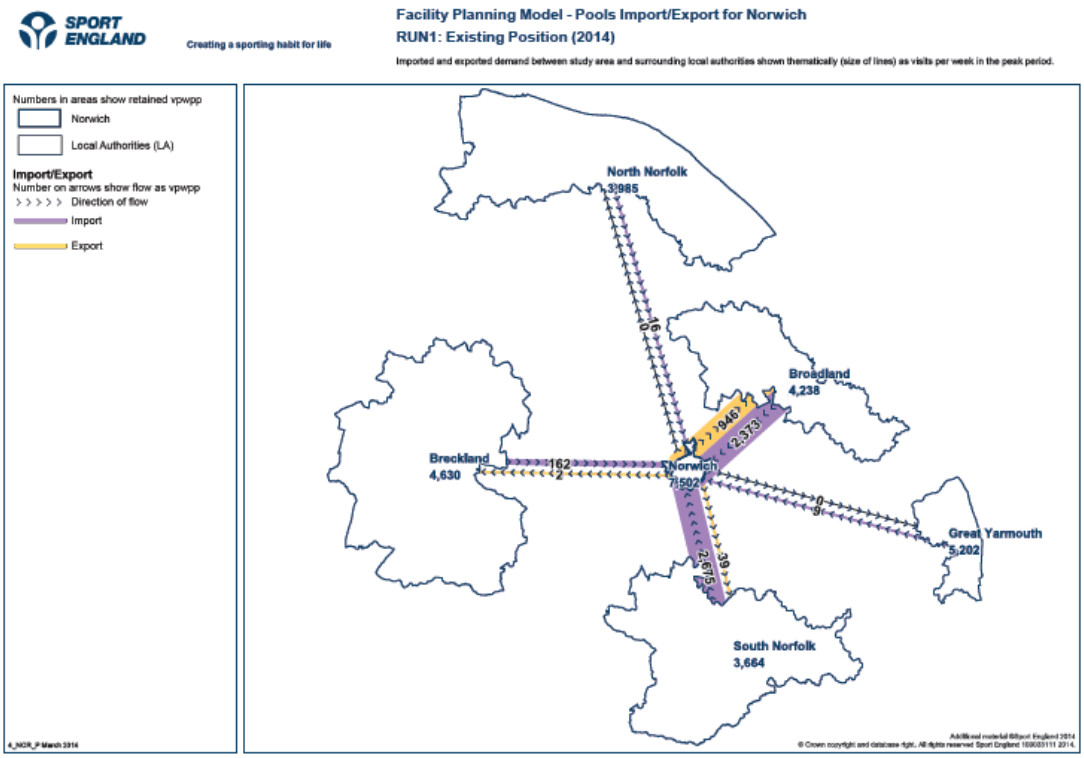
62. A summary of these findings is set out in Table 7 overleaf. The key overall findings are that:

- Norwich is retaining 89% of its own demand for swimming at pool located in Norwich. Not surprising given the scale of the Sportspark and Riverside pools;
- the significance of 32% of the Norwich population not having access to a car and therefore either walking or using public transport to get to pool is mitigated by the estimate that Norwich is retaining this very high level of demand. In effect the demand located within the 20 minutes/1mile walk and 20 minutes public transport catchment area of Riverside and less so Sportspark pool is quite high. If this was not the case then the satisfied demand figure would be lower than 89% of total demand and unmet demand would be higher because it would record a high percentage of demand located outside the walk to catchment area of a pool;
- Norwich is only exporting 11% of the total Norwich satisfied demand for swimming being met in Norwich – almost one in three visits to pools by Broadland resident is met in Norwich – notably at Sportspark and Riverside pools; and
- the remaining 11% of the Norwich satisfied demand for swimming is exported and virtually all of this goes to Broadland.

Table 7: Norwich retained and exported demand in visits and percentages in 2014

Name of authority	Norwich satisfied demand retained in Norwich in visits (percentage)	Norwich demand exported (visits)	Norwich demand exported as % of total Norwich satisfied demand
Norwich	7,502 (89%)	-	-
Broadlandk	-	946	11%
South Norfolk	-	39	-
Brecklnad	-	2	-

Map 7: Retained and exported demand for swimming Norwich 2014 Run 1



Retained and exported demand South Norfolk

63. Finally the same set of findings on retained and exported are reported for South Norfolk.

64. Map 8 overleaf is for South Norfolk and the figure of 3,664 visits in the District map is the amount of satisfied demand from South Norfolk residents which is met at pools located in South Norfolk. This represents 50% of the total South Norfolk demand for swimming in 2014. It means some the other 50% of the South Norfolk total satisfied demand for swimming is exported and met at pools located in neighbouring authorities.

65. Again the yellow chevron line from South Norfolk indicates the amount of South Norfolk demand which is exported and met in neighbouring authorities. Not surprisingly some 2,675 visits and which is 36% of the South Norfolk total satisfied demand goes to Norwich. After that some 490 visits some 7% of the South Norfolk satisfied demand goes to Waveney. Then it is 371 visits, some 5% goes to Broadland, followed by 174 visits which is 1% of the South Norfolk satisfied demand goes to Great Yarmouth and finally 57 visits also 1% goes to Breckland.

66. A summary of these findings is set out in Table 8 below. The overall key findings are;

- South Norfolk is retaining only 50% of its own demand at pools located in the district. For the remaining 50% of the South Norfolk satisfied demand the nearest pool for South Norfolk residents is located outside the authority; and

- some 36% of the South Norfolk demand is exported to Norwich, with 7% going to Waveney, 5% to Broadland and 1% to each of Great Yarmouth and Breckland.

Table 8: South Norfolk retained and exported demand in visits and percentages in 2014

Name of authority	South Norfolk satisfied demand retained in South Norfolk in visits (percentage)	South Norfolk demand exported (visits)	South Norfolk demand exported as % of total South Norfolk satisfied demand
South Norfolk	3,664 (50%)	-	-
Norwich	-	2,675	36%
Waveney	-	490	7%
Broadland	-	371	5%
Great Yarmouth	-	72	1%
Brecklnad	-	57	1%

Map 8: Retained and exported demand for swimming South Norfolk 2014 Run 1

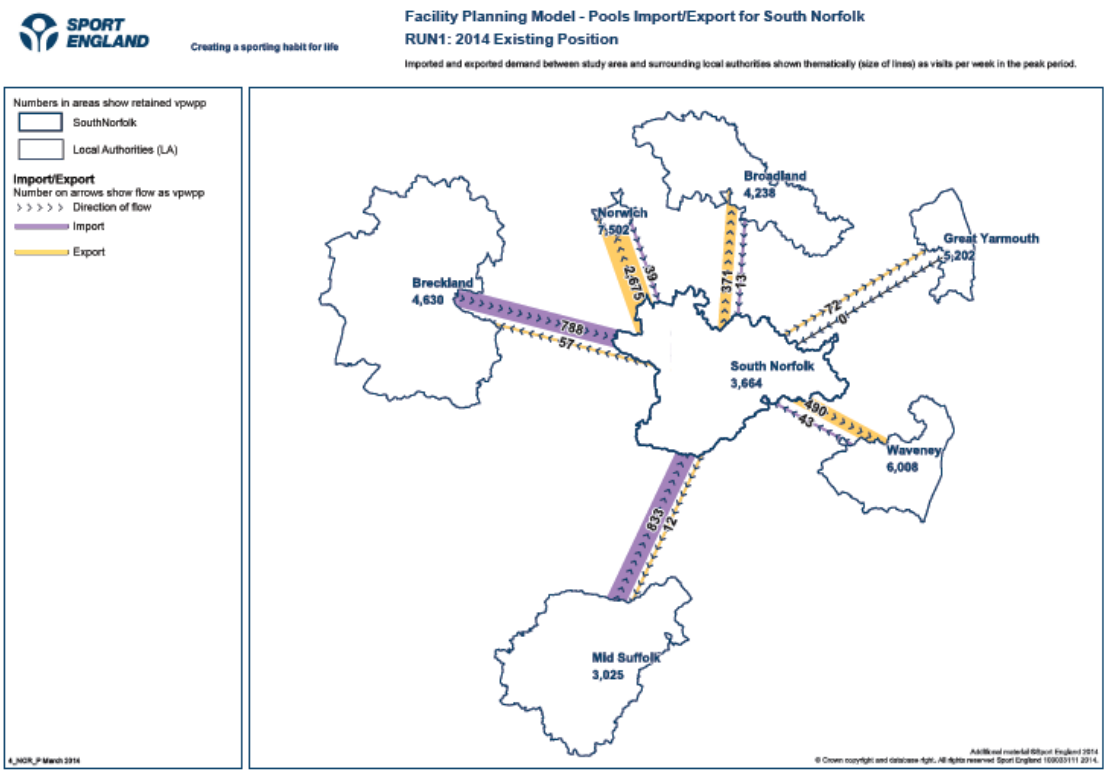


Table 9: Unmet Demand

Unmet Demand	Greater Norwich	Broadland	Norwich City	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Total number of visits in the peak, not currently being met	**1841**	660	544	638	2611	669	1017	1443	981
Unmet demand as a % of total demand	**7.4**	8.4	6	8	31.5	10.7	16.4	23.9	13.8
Equivalent in Water space m2 - with comfort factor	**303.47**	108.73	89.61	105.13	430.44	110.2	167.63	237.93	161.67
% of Unmet Demand due to ;									
Lack of Capacity -	**3.7**	3.9	0.0	6.6	0.7	0.1	3.5	0.4	2.5
Outside Catchment -	**96.3**	96.1	100.0	93.4	99.3	99.9	96.5	99.6	97.5
Outside Catchment;	**96.3**	96.1	100.0	93.4	99.3	99.9	96.5	99.6	97.5
% Unmet demand who do not have access to a car	**66.66**	52.97	94.9	56.75	28.74	69.67	41.61	36.08	70.79
% of Unmet demand who have access to a car	**29.66**	43.16	5.1	36.64	70.54	30.25	54.89	63.54	26.66
Lack of Capacity;	**3.7**	3.9	0.0	6.6	0.7	0.1	3.5	0.4	2.5
% Unmet demand who do not have access to a car	**0.7**	0.8	0.0	1.1	0.0	0.1	0.1	0.1	1.4
% of Unmet demand who have access to a car	**3.0**	3.0	0.0	5.6	0.7	0.0	3.4	0.3	1.1

67. Unmet demand is defined in two ways: demand for swimming which cannot be met because (1) there is too much demand for any particular pool within its catchment area; or (2) the demand is located outside the catchment area of any pool and is then classified as unmet demand.

68. Across Greater Norwich the total unmet demand is 1,841 visits which equates to 7.4% of total demand and is 303 sq metres of water. (Note: for context a 25metre x 4 lane pool is 210 sq metres of water).

69. In terms of the types of unmet demand the significant finding is that 96% is because it is located outside the catchment area of a swimming pool and only 4% is because of lack of swimming pool capacity. So some 96% of the total unmet demand in 2014 is attributed to location and lack of access to a swimming pool, predominantly being outside the drive time catchment area of a swimming pool with only 4% of the total unmet demand attributed to lack of pool capacity. The unmet demand due to lack of pool capacity equates to just 21 sq metres of water. To put this figure into context across Greater Norwich in 2014 there is 3,935 sq metres of water which is accessible to the public. By all comparisons the amount of unmet demand is low.

70. As Table 9 above shows these Greater Norwich findings on the total and balance of unmet demand between lack of capacity and located outside the catchment area of a pool are repeated in each authority.

71. In Broadland and South Norfolk the total amount of unmet demand is 8.4% and 8% of total demand and this represents 108 and 105 sq metres of water respectively. Of the total, some 96% and 93% is due to demand being located outside the catchment area of a pool and only 4% and 7% is due to lack of pool capacity.

72. The unmet demand due to lack of pool capacity is 4 sq metres of water in Broadland and 7 sq metres of water in South Norfolk.

73. In Norwich unmet demand totals 89 sq metres of water, with ALL of the unmet demand estimated to be because it is located outside the catchment area of a pool.

74. It is possible to map the scale and location of the unmet demand for swimming across Greater Norwich and this is set out in Map 9 overleaf.

75. The maps illustrate the scale and location unmet demand in 1 kilometre grid squares. The values in the squares represent the amount of unmet demand in square metres of water. Indigo coloured squares represent between 0 – 1 sq metres of water as unmet demand. Darker blue squares represent 1 – 2 sq metres of water, lighter blue squares are 2 – 3 sq metres of water, green squares are 3 – 4 sq metres of water and light yellow squares are 4 – 5 sq metres of water.

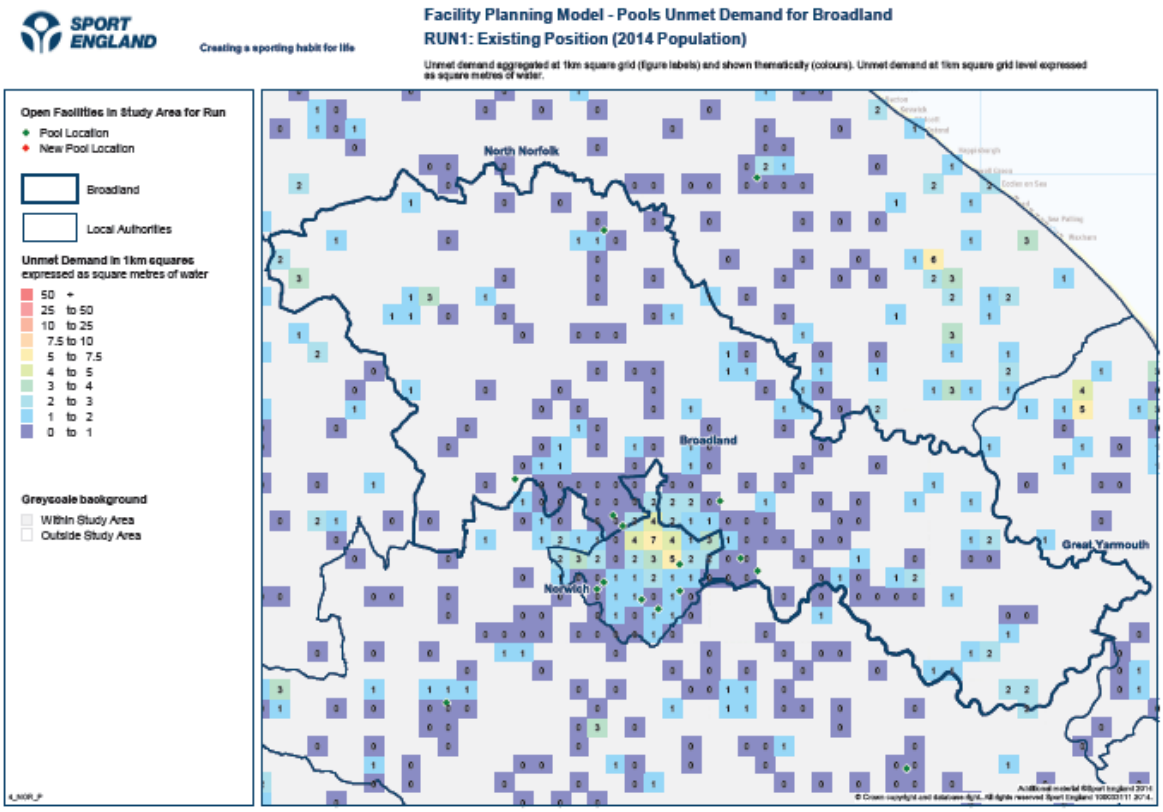
76. So overall the squares represent very low values in terms of sq metres of water and this is because across each authority the total amount of unmet demand for swimming is only 108 sq metres in Broadland, 90 sq metres in Norwich and 105 sq metres in South Norfolk.

77. So there are no hot spots/priority locations which have high levels of unmet demand for swimming.

    Note: the Greater Norwich map is below as map xx. However the large land area of Greater Norwich and the comparatively small land area for Norwich itself means the map findings are very hard to follow. Therefore the commentary is presented on the bigger scale maps for each authority, staring with Broadland.

78. For Broadland the majority of the colour coded squares are indigo and have a value closer to zero than 1 sq metre of water. There are around 20 blue shaded squares but only 6 which are the lighter blue with 2 sq metres of water as unmet demand. Most of these are located to the SE of the authority. In short unmet demand has very low values and is spread across the authority.

Map 9: Location and scale of unmet demand for swimming Broadland District 2014

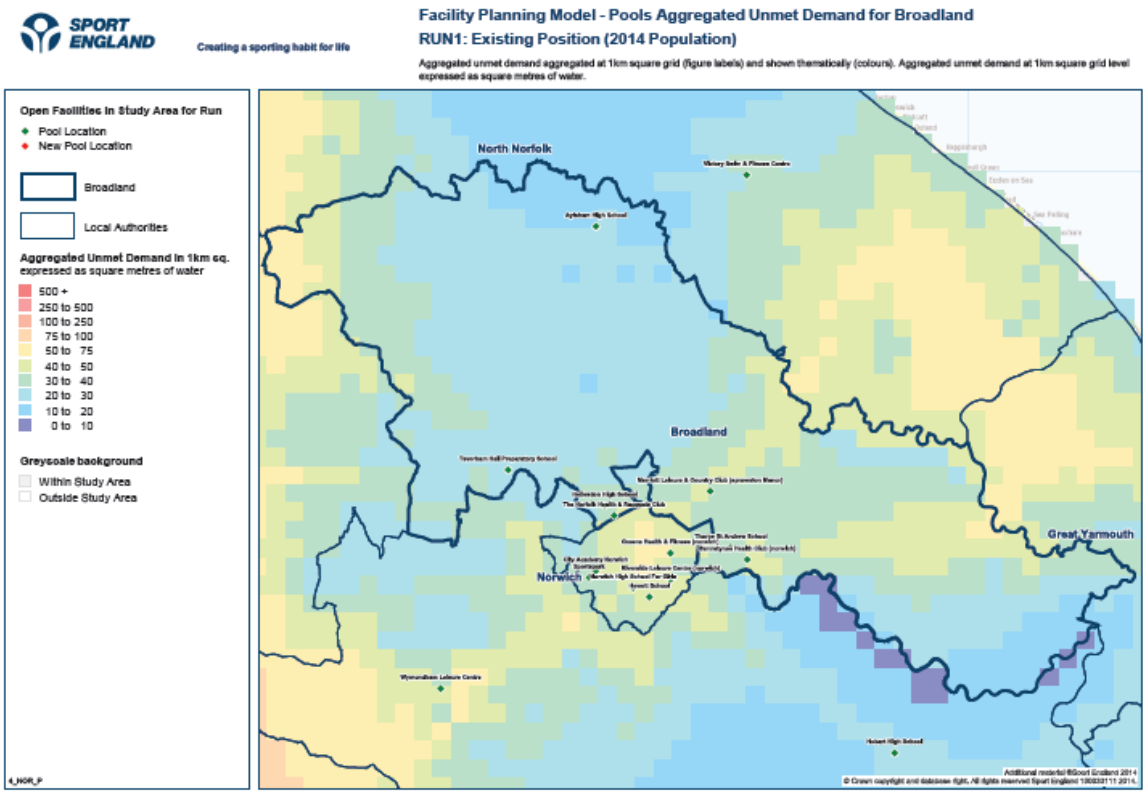


79. It is possible to aggregate the unmet demand into one kilometre grid based on the total amount of unmet demand within the CATCHMENT AREA OF A POOL for each grid square. In effect, this shows the hot spot areas of greatest unmet demand – when aggregated and based on catchment. The map for Broadland is set out below as Map 10.

80. For this map the values in the squares are: Darker blue squares represent 10 – 20 sq metres of water, lighter blue squares are 20 – 30 sq metres of water, green squares are 30 – 40 sq metres of water and light yellow squares are 40 – 50 sq metres of water.

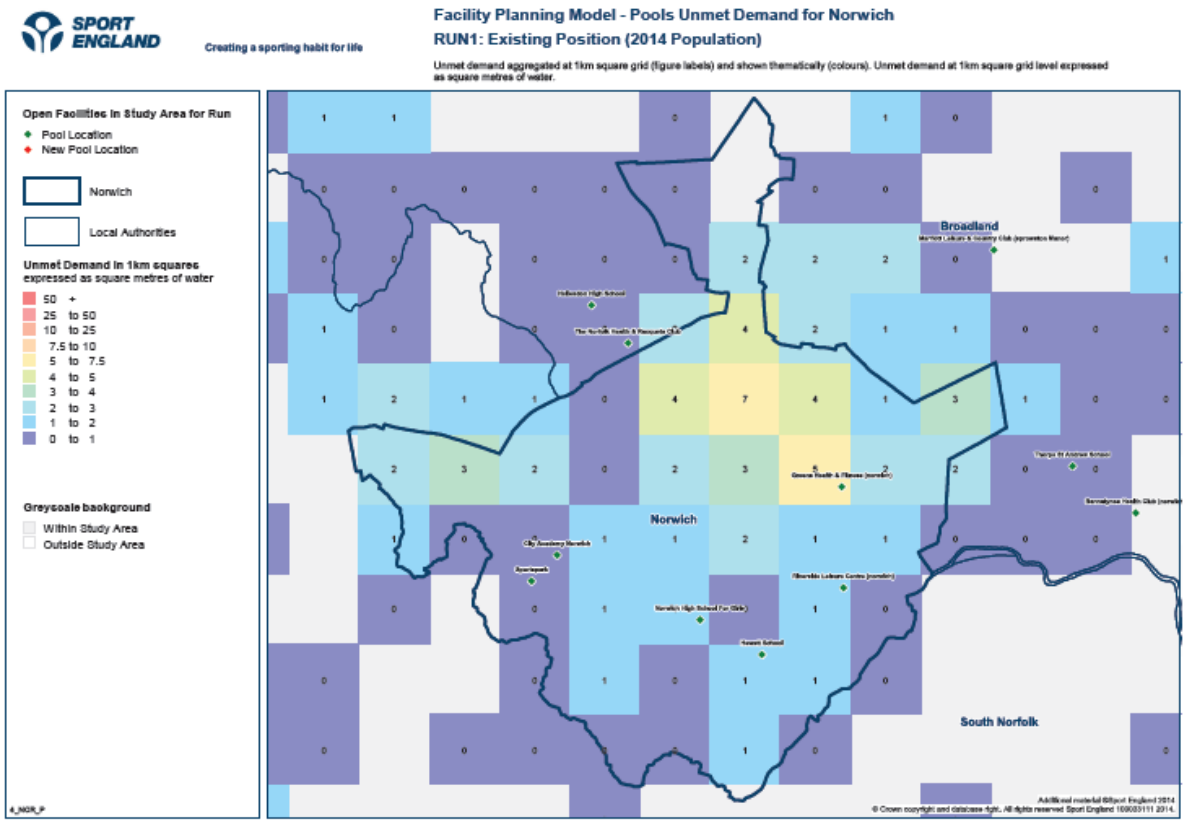
81. As Map 10 overleaf shows the highest aggregated unmet demand is located in the SE of the authority and this in effect is the "hot spot" of aggregated unmet demand for swimming based on demand located outside the catchment area of an existing pool in Broadland. The value of the green/yellow squares is between 40m – 50m sq metres of water and for context a 25m x 4 lane pool is 212 sq metres of water. So based on aggregated unmet demand the values of the unmet demand is still low in terms of the scale of provision required for swimming pools.

Map 10: Location and scale of AGGREGATED unmet demand for swimming Broadland District 2014



82. In terms of the findings for Norwich Map 11 overleaf shows the highest value unmet demand squares are located in the centre/north of the authority and these are 5 green squares each with a total value of 18 sq metres of water and 2 cream coloured squares with a total value of 12 sq metres of water. So overall low values of unmet demand across Norwich for swimming in 2014.

Map 11: Location and scale of unmet demand for swimming Norwich 2014

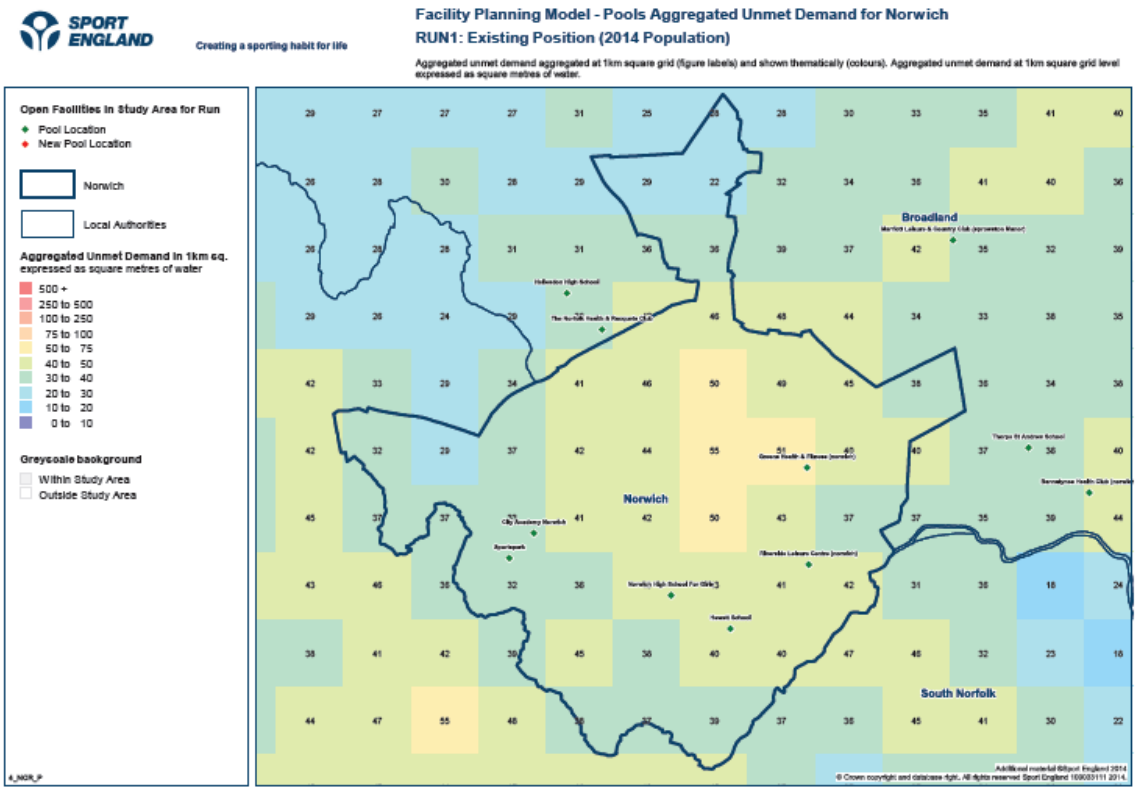


83. In terms of the aggregated unmet demand when based on poll catchments and the location of demand the map for Norwich is set out overleaf as Map 12.

84. For this map the values in the squares are: green squares are 30 – 40 sq metres of water and light yellow squares are 40 – 50 sq metres of water.

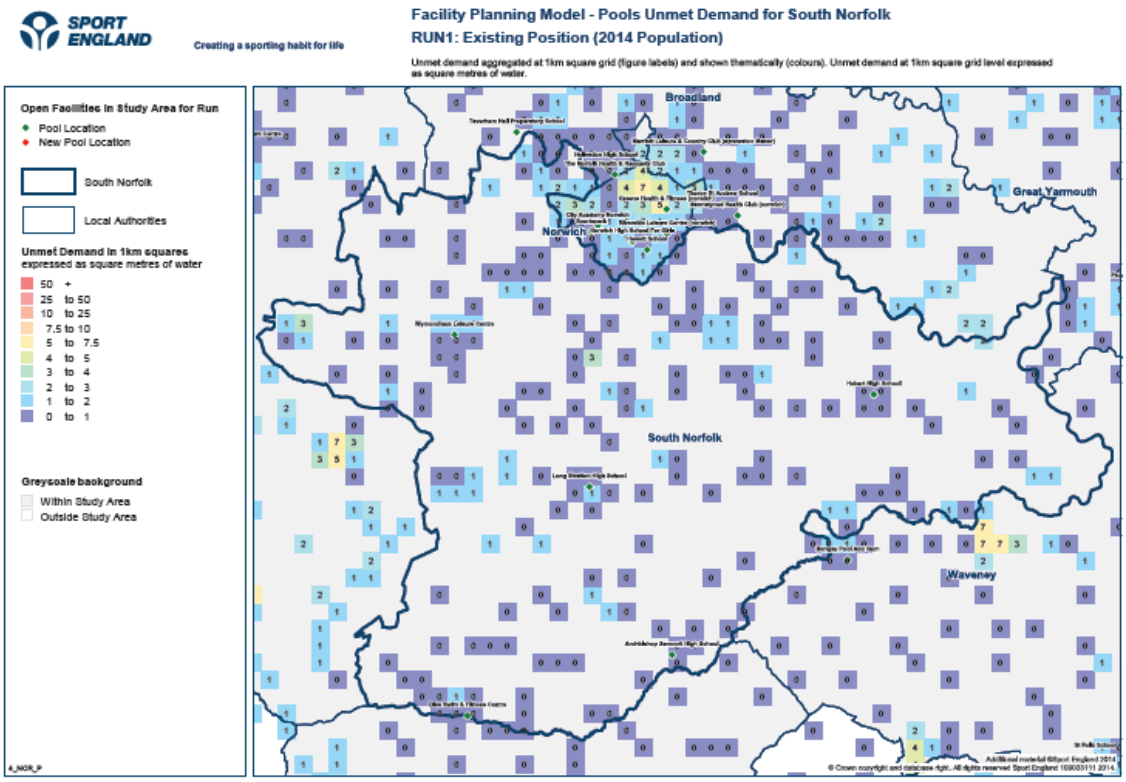
85. As Map 12 overleaf shows the highest aggregated unmet demand is located in the centre and to the east of the centre of Norwich where the 4 cream coloured squares total 156 sq metres of water. In effect this is the "hot spot" of aggregated unmet demand for swimming based on demand located outside the catchment area of an existing pool in Norwich. Based on aggregated unmet demand the values of the unmet demand are still low in terms of the scale of provision required for swimming pools.

Map 12: Location and scale of AGGREGATED unmet demand for swimming Norwich 2014



86. Finally for South Norfolk and the Map 13 overleaf shows the majority of the colour coded squares are indigo and have a value closer to zero than 1 sq metre of water. There are around 30 blue shaded squares and virtually all of these are the darker blue with 1 sq metre of water as unmet demand. There is no one area of concentrated unmet demand for these value squares.

Map 13: Location and scale of unmet demand for swimming South Norfolk District 2014

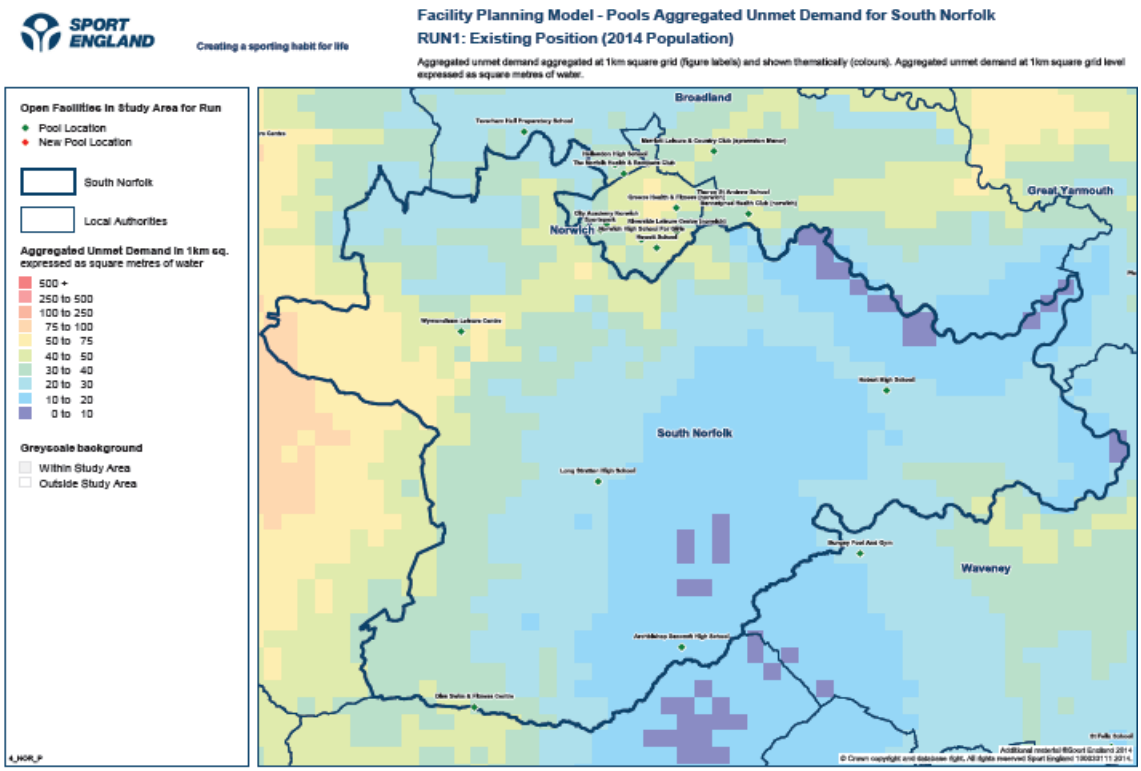


87. In terms of aggregated unmet demand based on the total amount of unmet demand within the CATCHMENT AREA OF A POOL for each grid square, this shows the hot spot areas of greatest unmet demand – when aggregated and based on catchment. The map for Broadland is set out overleaf as Map 14.

88. This map shows the darker blue squares representing 10 – 20 sq metres of water are predominate and in the centre and east of the authority. The lighter blue squares are 20 – 30 sq metres of water, and in the centre/west of the authority. Whilst the green squares with 30 – 40 sq metres of water are located in the west of the authority.

89. The area of highest aggregated unmet demand are the light green/yellow squares with between 40 – 50 sq metres of water and as the map shows these squares are located in a cluster to the north west of the authority. In effect this is the "hot spot" of aggregated unmet demand for swimming based on demand located outside the catchment area of an existing pool in South Norfolk. However even in this area the highest value square is only 40 – 50 sq metres of water and a 25m x 4 lane pool is 212 sq metres of water. So even based on aggregated unmet demand the values of the unmet demand is still low in terms of the scale of provision required for swimming pools.

Map 14: Location and scale of AGGREGATED unmet demand for swimming South Norfolk District 2014



90. So in summary the findings on unmet demand are;

- unmet demand for swimming pools is very low across Greater Norwich and in each authority. Across the whole area it totals 660 sq metres of water and is 8% of the total demand for swimming. For context the total supply of water space for public use across Greater Norwich is 3,935 sq metres of water;
- unmet demand as a percentage of total demand is 8.4% in Broadland, 6% in Norwich and 8% in South Norfolk;
- unmet demand is overwhelmingly due to location and demand located outside the catchment area of a pool. It is 96% of the total unmet demand in Broadland, 100% in Norwich and 93.4% in South Norfolk;
- of the unmet demand due to lack of pool capacity it is very low and appears not to be an issue at all. In Broadland unmet demand due to lack of pool capacity is estimated to total 4 sq metres of water and 7 sq metres of water in South Norfolk. There is estimated to be no unmet demand due to lack of pool capacity in Norwich;
- given unmet demand is very low (under both definitions of lack of capacity and demand located outside catchment of a pool) then there are no evident hot spots of unmet demand - even when the unmet demand is aggregated to find the areas which

have the highest amount of unmet demand based on the catchment area of a swimming pool;

- in Broadland aggregated unmet demand is highest at between 40 – 50 sq metres of water in the SE of the authority;
- in Norwich aggregated unmet demand is highest in the centre of Norwich where it totals I 56 sq metres of water; and
- in South Norfolk aggregated unmet demand is highest in the NW of the authority at between 40 – 50 sq metres of water. (Note: for context a 25m x 4 lane pool is 212 sq metres of water).

Table 10: Used Capacity

Used Capacity	Greater Norwich	Broadland	Norwich City	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Total number of visits used of current capacity	**23983**	5798	12737	5448	5470	5556	3227	4257	6960
% of overall capacity of pools used	**70.3**	64.4	74.9	67.3	70.7	82.7	66.6	36.2	64.6
% of visits made to pools by walkers	**10.4**	7.3	12.9	7.6	8.4	16.8	5.6	8.3	9
% of visits made to pools by road	**89.6**	92.7	87.1	92.4	91.6	83.2	94.4	91.7	91
Visits Imported;									
Number of visits imported	**2162**	1560	5235	1785	840	354	202	272	951
As a % of used capacity	**9**	26.9	41.1	32.8	15.4	6.4	6.3	6.4	13.7
Visits Retained:									
Number of Visits retained	**21821**	4238	7502	3664	4630	5202	3025	3985	6008
As a % of used capacity	**91**	73.1	58.9	67.2	84.6	93.6	93.7	93.6	86.3

91. Used capacity is a measure of usage and throughput at swimming pools and estimates how well used/how full facilities are. The Sport England facilities planning model is designed to include a 'comfort factor', beyond which, in the case of swimming pools, the pools are too full. The model assumes that usage over 70% of capacity is busy and the pool is operating at an uncomfortable level above that percentage.

92. The total number of visits expressed as used capacity at the 22 pools across 18 sites in Greater Norwich is 23,983 visits and this represents 70.3% of the pools total capacity. In effect, the pools are right on the Sport England "comfort pools full" level of 70% of total capacity used.

93. The Greater Norwich average however does vary across each authority.

- In Broadland the used capacity of pools 64.4% of total capacity and so there is around 5% of pool capacity before the pools full comfort level is reached.
- In Norwich the used capacity of pools 74.9% of total capacity and so the estimate is that the pools are very full and some 5% above the pools full comfort level.

- In South Norfolk the used capacity of pools is estimated to be 67.3% of totals pool capacity used and so some 3% of pool capacity before the pools full comfort level of 70% is reached.

94. Even within the authority wide averages there are some variations at individual pool sites and Table 11 overleaf sets out the used capacity for each of the 22 pools across Greater Norwich. As can be seen it is the public pools which have very high levels of used capacity reflecting they operate on a full public access basis and provide for the full range of swimming programmes: - casual swimming; lane and fitness swimming; schools programmes; learn to swim programmes; swimming clubs and development programmes for swimming. Also some of the school pools which whilst not providing the full range of swimming programmes can be in locations where there is high demand for some form of community use and there could also be limited public sector swimming pools within the same catchment area.

95. It is the private and commercial pools which operate on a membership system where the pool capacity used is lower and this is reflected in the averages for used capacity across each Council.

96. So the pools estimated to be most full are in Norwich: Riverside with 96% of pool capacity used in the weekly peak period; Norwich School for Girls with 98% of pool capacity used; and Sportspark with 93% of pool capacity used. In South Norfolk it is Diss swimming pool with 69% of pool capacity used and Wymondham Leisure Centre with 63% of pool capacity used.

97. In Broadland it is Aylsham High School and Hellesdon High School at 100% of pool capacity used.

98. So whilst overall across Greater Norwich there is an average of pool capacity used which means the pools are comfortably full there it is the distribution of the demand which is creating an imbalance with very high estimated used capacity at 9 out of the total 18 sites.

99. Redistribution of demand to create an overall balance in the level of pool capacity use is the preferred route to addressing this problem To do this by a managed programme of intervention where all the range of swimming activites and types of use between pay and recreational swimming and club based swimming is identified and managed across the sites. The challenges in achieving this intervention is that;

- the pool sites are located across three local authorities;

- there is a range of independent providers. With local authority providers in Norwich and South Norfolk but not in Broadland;

- the Sportspark venue operating as effectively a Greater Norwich venue/catchment as shown by the retained and export of swimming demand across the three authorities, with Norwich having much more capacity than there is demand in Norwich but the Sportspark and Riverside venues are effectively full because of the location of demand in Broadland and South Norfolk making these two venues the nearest location for many residents in these two authorities;

  to reiterate Norwich is retaining some 88% of its own demand for swimming in Norwich. In addition Broadland is exporting 41% of its demand for swimming and which is met

outside Broadland, with some 81% (of the 41% export total) going to Norwich. Whilst South Norfolk is exporting some 50% of its own demand for swimming and 67% (of the 50%) is being met in Norwich;

in effect Norwich has the capacity to meet 88% of its own demand for swimming and is absorbing this level of imported demand from the neighbouring two authorities;

- the schools are independent and determine their approach to community use in terms of any and how much. The schools community use of the pools is a combination of club based swimming and learn to swim programmes. The size of the school pools with the exception of Hewitt School and Norwich High School for Girls (both 250 sq metres of water) are around 140 – 160 sq metres of water a 20m x 3 0 4 lane pool; and

  the size of the pool plus limited changing areas and most importantly the inappropriate role of schools to provide for full public access pay and swim programmes makes them inappropriate venues for wider based community use.

100. Overall these are very big challenges to overcome in taking interventions to achieve a more balanced programme of use and levels of pool capacity used across and within each of the three local authorities.

Table 11: Percentage of swimming pool capacity used for all pools in Greater Norwich in 2014

Name of facility	Type	Area	Year built	Year refurb	Public/Commercial	% of Capacity used	% of capacity not used	Demand redistributed after initial allocation
Norwich						**75%**	**25%**	**66**
CITY ACADEMY NORWICH	Main/General	85	1960		P	24%	76%	0
GREENS HEALTH & FITNESS (NORWICH)	Main/General	250	2001		C	47%	53%	5
HEWETT SCHOOL	Main/General	250	1960	2006	P	64%	36%	10
NORWICH HIGH SCHOOL FOR GIRLS	Main/General	250	2000	2006	P	98%	2%	10
RIVERSIDE LEISURE CENTRE (NORWICH)	Main/General	338	2003		P	96%	4%	24
RIVERSIDE LEISURE CENTRE (NORWICH)	Learner/Teaching/Training	101						
SPORTSPARK	Main/General	850	2000	2008	P	93%	7%	18
South Norfolk						**67%**	**33%**	**-114**
ARCHBISHOP SANCROFT HIGH SCHOOL	Main/General	188	1980	2007	P	59%	41%	19
DISS SWIM & FITNESS CENTRE	Main/General	313	1987	2004	P	69%	31%	27
DISS SWIM &	Learner/Teaching/Training	38						

Name of facility	Type	Area	Year built	Year refurb	Public/Commercial	% of Capacity used	% of capacity not used	Demand redistributed after initial allocation
FITNESS CENTRE								
LONG STRATTON HIGH SCHOOL	Leisure Pool	90	1960	2008	P	58%	42%	-171
WYMONDHAM LEISURE CENTRE	Main/General	338	1999		P	63%	37%	19
WYMONDHAM LEISURE CENTRE	Learner/Teaching/Training	81						
Broadland						64%	**36%**	**-104**
AYLSHAM HIGH SCHOOL	Main/General	92	1960	2010	P	100%	0%	-139
BANNATYNES HEALTH CLUB (NORWICH)	Main/General	160	1999		C	56%	44%	3
HELLESDON HIGH SCHOOL	Main/General	136	1964	2009	P	100%	0%	8
MARRIOTT LEISURE & COUNTRY CLUB (SPROWSTON MANOR)	Leisure Pool	169	1991	2004	C	92%	8%	3
TAVERHAM HALL PREPARATORY SCHOOL	Main/General	135			P	49%	51%	9
THE NORFOLK HEALTH & RACQUETS CLUB	Main/General	325	2006		C	56%	44%	12
THE NORFOLK HEALTH & RACQUETS CLUB	Leisure Pool	6						
THORPE ST ANDREW SCHOOL	Main/General	200	1950		P	31%	69%	0
						61%	39%	126

Imported demand for swimming

101. The level of demand for swimming which is imported into the Greater Norwich area is reported in the used capacity category of findings. This is because for residents of the three local authorities of Greater Norwich and the surrounding local authorities, the nearest pool to where they live could be located outside the local authority in which they live and so the model distributes this demand to the pool in the other authority. It then becomes part of the used capacity of this other authority.

102. In 2014 Greater Norwich is importing quite a small amount of demand and this is a total of 2,162 visits, or put another way, some 9% of the used capacity of the 22 Greater Norwich pools. This however is movement into Greater Norwich from OUTSIDE Greater Norwich and as

important is the movement/amount of imported demand BETWEEN the three Councils within Greater Norwich and in effect is an "internal transfer" between the Councils.

103. The simplest way to set out the findings on imported demand is by use a map which places each of the three districts at the heart and shows the boundary and location of the authorities from which demand is imported and the value of the imported demand in visits.

104. Map 16 overleaf is for Broadland District and there are 1,560 visits imported into Broadland in 2014. This represents some 26.9% of the total used capacity of the Broadland pools in 2014.

105. In Map 16 below the purple chevron line into Broadland indicates the amount of demand which is imported from each neighbouring authority.

106. A summary of these findings is set out in Table 12 below. The key overall findings are that:

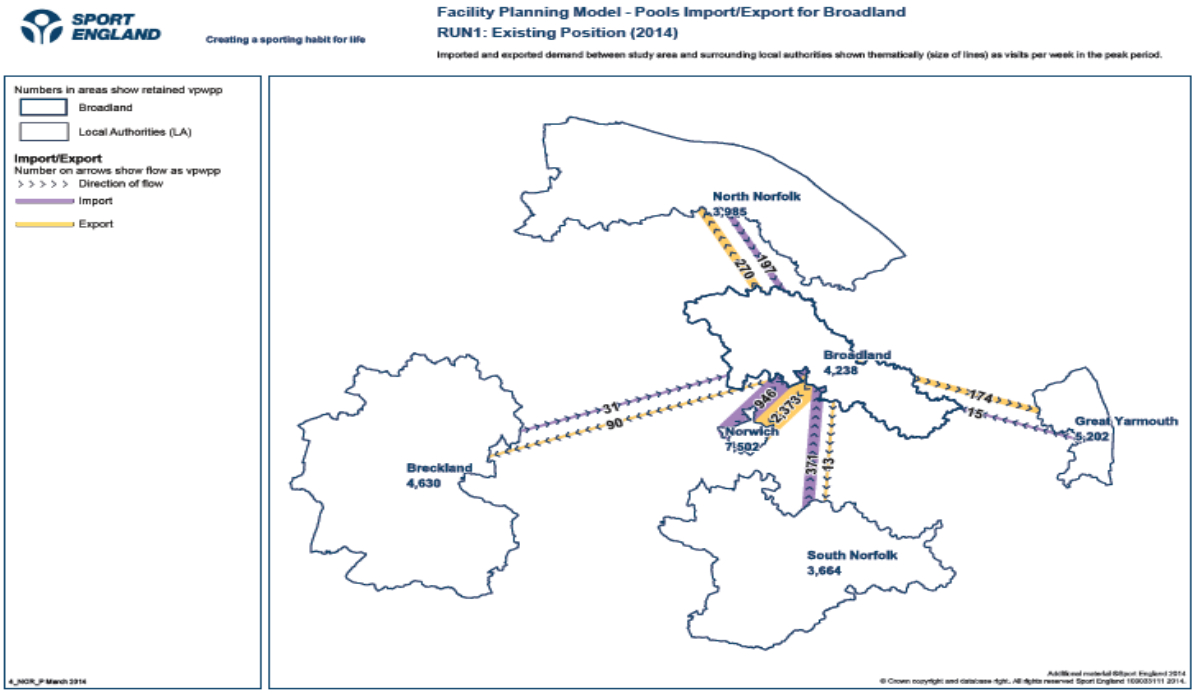
- Broadland is importing some 27% of the total used capacity of its pools, so one in four visits to a pool in Broadland is imported.

- The biggest import not surprisingly is from Norwich with 60% of the total Broadland imported demand for swimming coming from Norwich.

Table 12: Broadland imported demand for swimming in visits and percentages in 2014

Name of authority	Broadland imported demand and which is part of the used capacity of pools in Broadland (visits and percentage of total used capacity of the pools
Broadland	-
Norwich	946 60.6%)
North Norfolk	197 12.6%)
Great Yarmouth	15 (0.96%)
Breckland	31 (1.9%)
South Norfolk	371 (23.7%)
Total imported demand into Broadland (visits and percentage of the used opacity of pools)	1, 560 visits imported and which is 26.9% of the total used capacity of the Broadland pools

Map 16: Imported demand for swimming Broadland District 2014 Run 1



107. The same information and map can be set out for Norwich and this shows that Norwich is importing some 5,235 visits in 2014 and which represents some 41.1% of the total used capacity of swimming pools in the City. It is not surprising to find that Norwich is importing such a high level of demand given its swimming pool capacity in 2014 is 17,008 visits, compared with 8,996 visits in Broadland and 8,100 visits in South Norfolk.

108. A summary of the findings is set out in Table 13 below. The key overall findings are that:

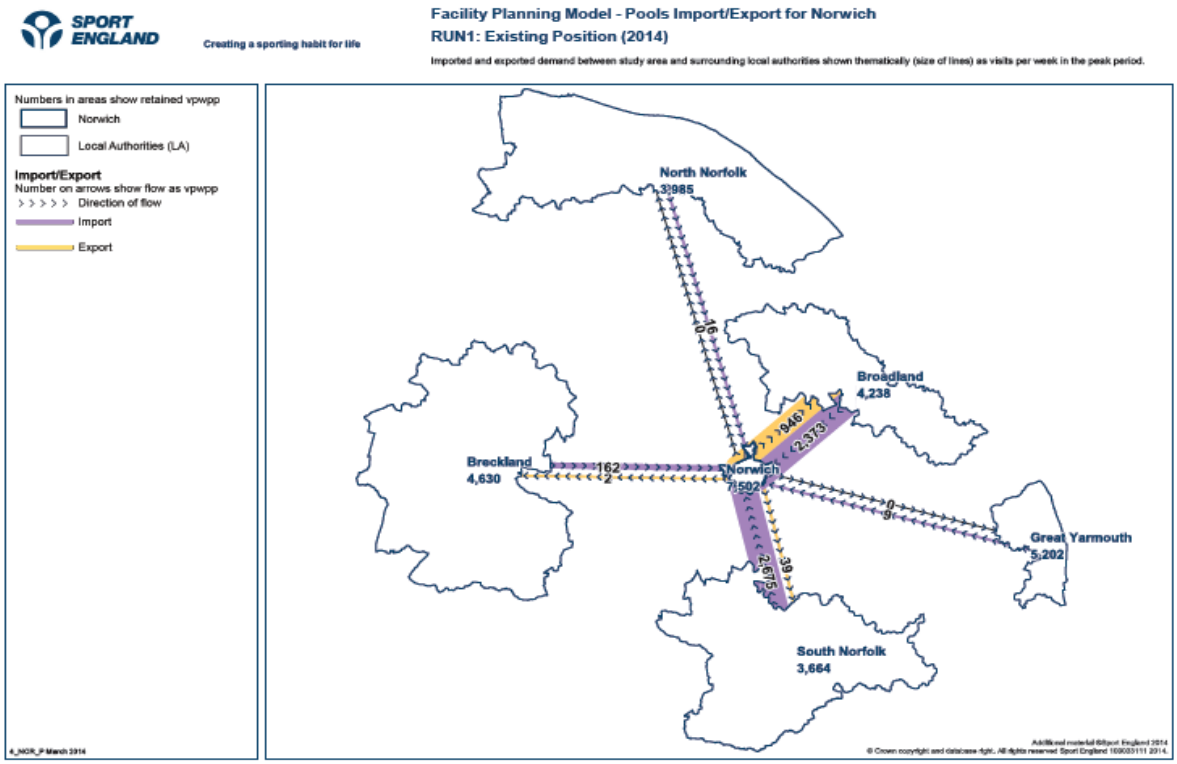
- Norwich is importing some 41% of the total used capacity of its pools, so four out of ten visits to a pool in Norwich is imported; and
- the biggest imports are very even between Broadland at 45% and South Norfolk at 51% of the total demand for swimming imported and met at pools in Norwich.

Table 13: Norwich imported demand for swimming in visits and percentages in 2014

Name of authority	Norwich imported demand and which is part of the used capacity of pools in Norwich (visits and percentage of total used capacity of the pools
Broadland	2,373 (45.3%)
Norwich	-
North Norfolk	16 (0.3%)
Great Yarmouth	9 (0.1%)
Breckland	162 (3%)
South Norfolk	2,675 (51%)

Name of authority	Norwich imported demand and which is part of the used capacity of pools in Norwich (visits and percentage of total used capacity of the pools
Total imported demand into Norwich (visits and percentage of the used opacity of pools)	5,235 visits imported and which is 41.1% of the total used capacity of the Norwich pools

Map 17: Imported demand for swimming Norwich Run 1



109. Finally the same information and map can be set out for South Norfolk and this shows that South Norfolk is importing some 1,785 visits in 2014 and which represents some 32.8% of the total used capacity of swimming pools in the authority.

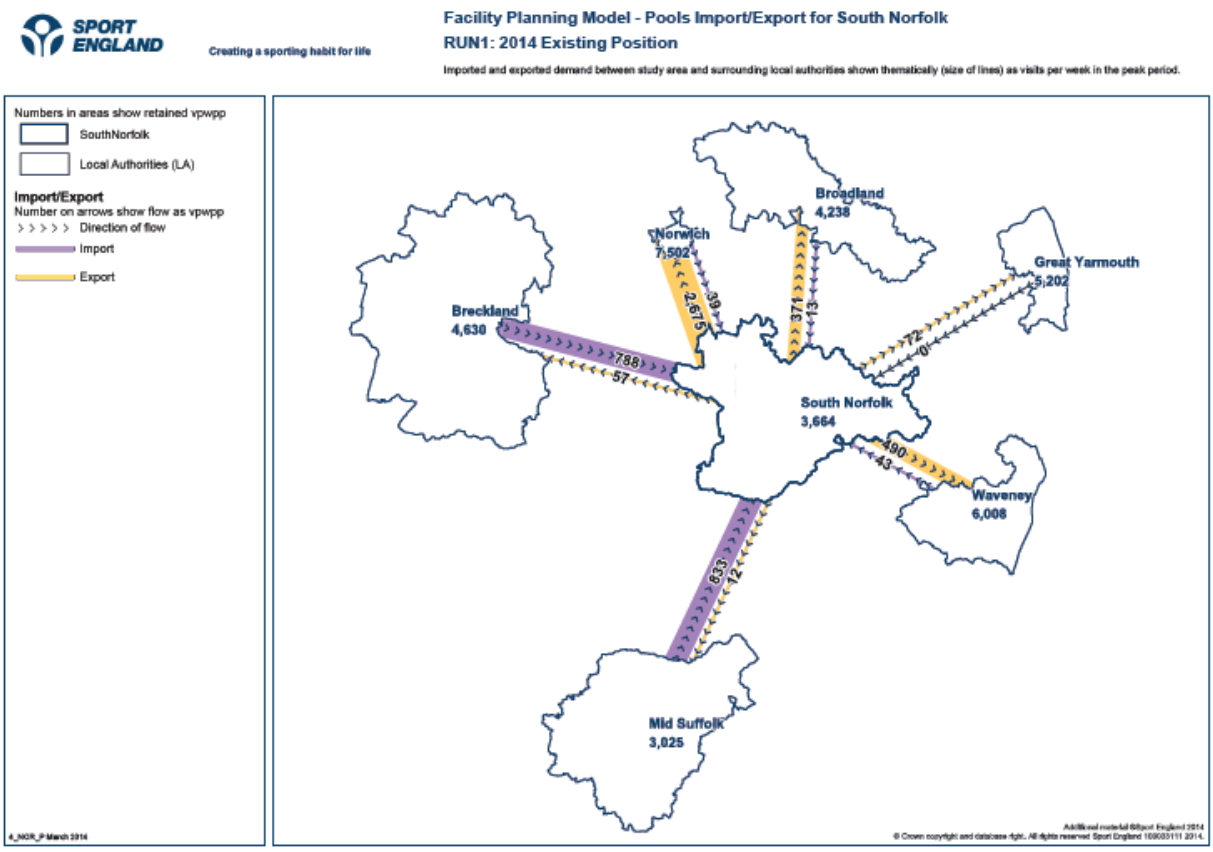
110. A summary of the findings is set out in Table 14 overleaf. The key overall findings are that:

- The biggest imports are from outside Greater Norwich, with 833 visits coming from Mid Suffolk and 788 visits coming from Breckland. There are only 13 visits coming from Broadland and 39 visits coming from Norwich.

Table 14: South Norfolk imported demand for swimming in visits and percentages in 2014

Name of authority	South Norfolk imported demand and which is part of the used capacity of pools in South Norfolk (visits and percentage of total used capacity of the pools
Broadland	13 ((0.7%)
Norwich	39 (2.1%)
Waveney	43 (2.4%)
Breckland	788 (44.1%)
Mid Suffolk	833 (46.6%)
South Norfolk	-
Total imported demand into South Norfolk (visits and percentage of the used opacity of pools)	1,785 visits imported and which is 32.8% of the total used capacity of the South Norfolk pools

Map 18: Imported demand for swimming South Norfolk Run 1



111. Finally it is now possible to set out the total retained, exported and imported demand in visits for each of the three authorities. This is set out in Table 15 overleaf and not surprisingly it shows that;

- Norwich is a very big net importer of 4,248 visits and only exports some 987 visits;

- both Broadland and South Norfolk are net exporters – predominately to Norwich; and
- South Norfolk exports as many visits of its own demand as it retains at its own pools. Depending on the location of the growth areas in South Norfolk but if more of the growth is located closer to Norwich pool then this trend of exporting demand will continue and the Norwich pools are already very full at 74.9% of the total pool capacity used.

Table 15: Number of visits for retained, exported and import demand across Greater Norwich in 2014

	Retained visits	Exported visits	Imported visits	Net Import/Export
Greater Norwich	21,821	1,165	2,162	Net import of 997 visits
Broadland	4,238	2,919	1,560	Net export of 1,359 visits
Norwich	7,502	987	5,235	Net import of 4,248 visits
South Norfolk	3,664	3,677	1,785	Net export of 1,892 visits

Table 16: Relative Share

Relative Share	Greater Norwich	Broadland	Norwich	South Norfolk	Breckland	Great Yarmouth	Mid Suffolk	North Norfolk	Waveney
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	**99**	100	98	99	73	80	83	148	98
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	**-1**	0	-2	-1	-27	-20	-18	48	-2

112. In addition to the supply and demand assessment above, the Sport England facility planning model also analyses the relative share of swimming pools – i.e. it takes into account the location of the population with the size and availability of facilities. It then assesses whether residents in one area have a greater or lesser share of provision than other areas, when compared against a national average (100).

113. A simple analogy is to consider swimming pool provision as a cake, its size being proportional to the facility's catchment and its slices divided among the users within the catchment.

114. The relative share values for Greater Norwich and within each authority are within a very narrow range. For Greater Norwich the value is - 1% when compared to the England wide share of access to swimming pools being based on 100%. The value for Broadland is the same as England and shows no variation. For Norwich it is -2% below the England wide average and for South Norfolk it is -1% below the England wide average in 2014.

115. It is possible to show in map form how the Greater Norwich values vary across the authorities. This is another spatial output from the study and this time based on accessibility to swimming pools.

116. These findings are presented in Maps 19 to 22 below first for Greater Norwich and then for each district. The colour coded key for each 1 kilometre grid square shows the areas with the highest access to swimming pools.

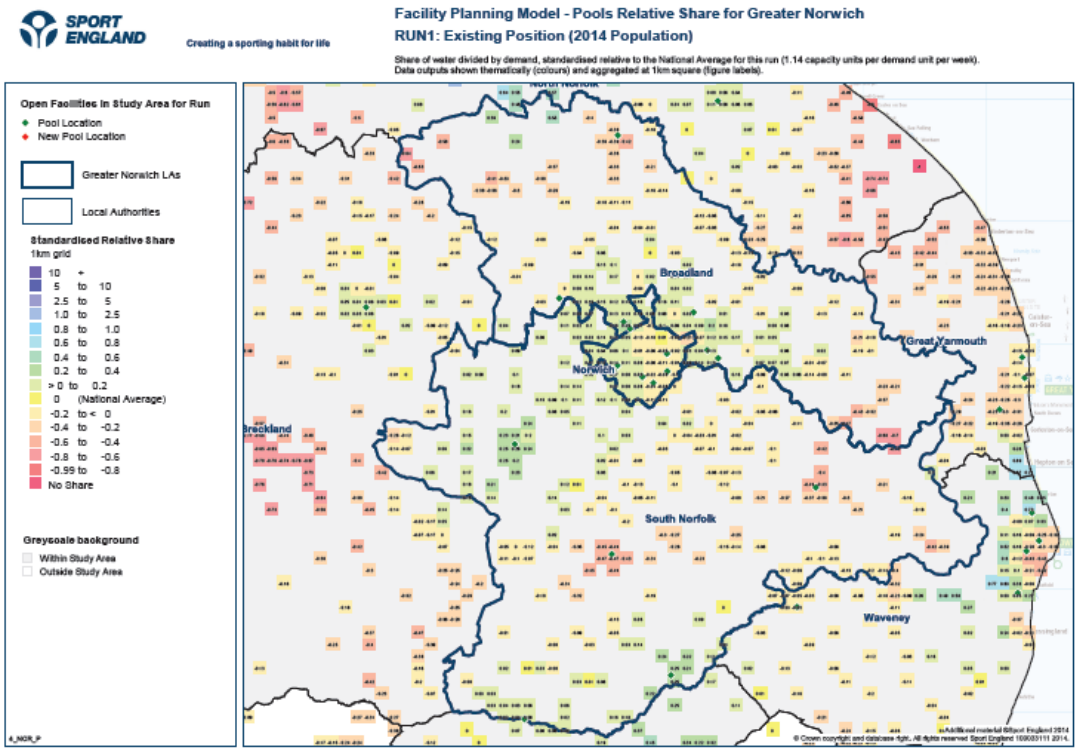
117. For some areas of Broadland there are values, shaded green and with a value of 0% - 20% above the England wide average and there are some areas with a negative value and below the England wide average. There are some areas shaded cream and pink and with a value of between 20% - 40% above the England wide average.

118. For both Norwich and South Norfolk there are similar negative and positive values below and above the authority wide average of -1% and 2% respectively for access to swimming pools.

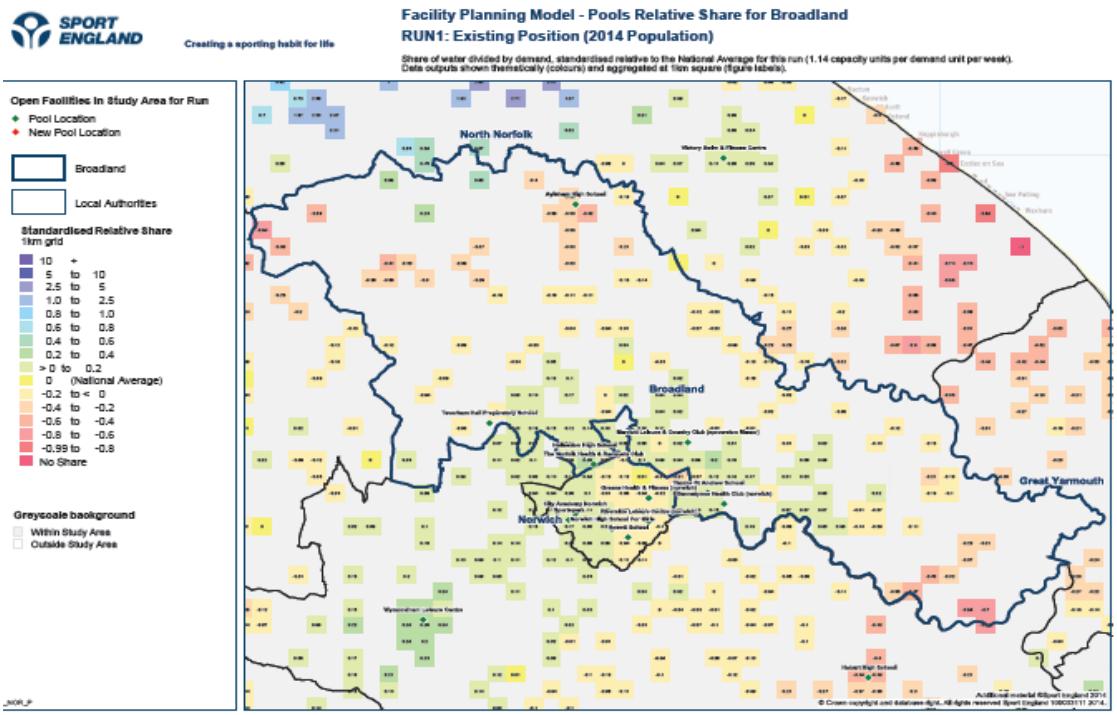
119. In effect for all authorities in the areas shaded green means residents in these areas enjoy the highest access to swimming pools across Greater Norwich and this is just above the England wide average.

120. In the areas shaded cream and pink these are the areas where residents have the lowest relative share of access to swimming pools. (Note: it is noted that the ACTUAL values in each grid square are not possible to read in the A4 size of the report. A full set of the maps is provided to each authority to be able to enlarge).

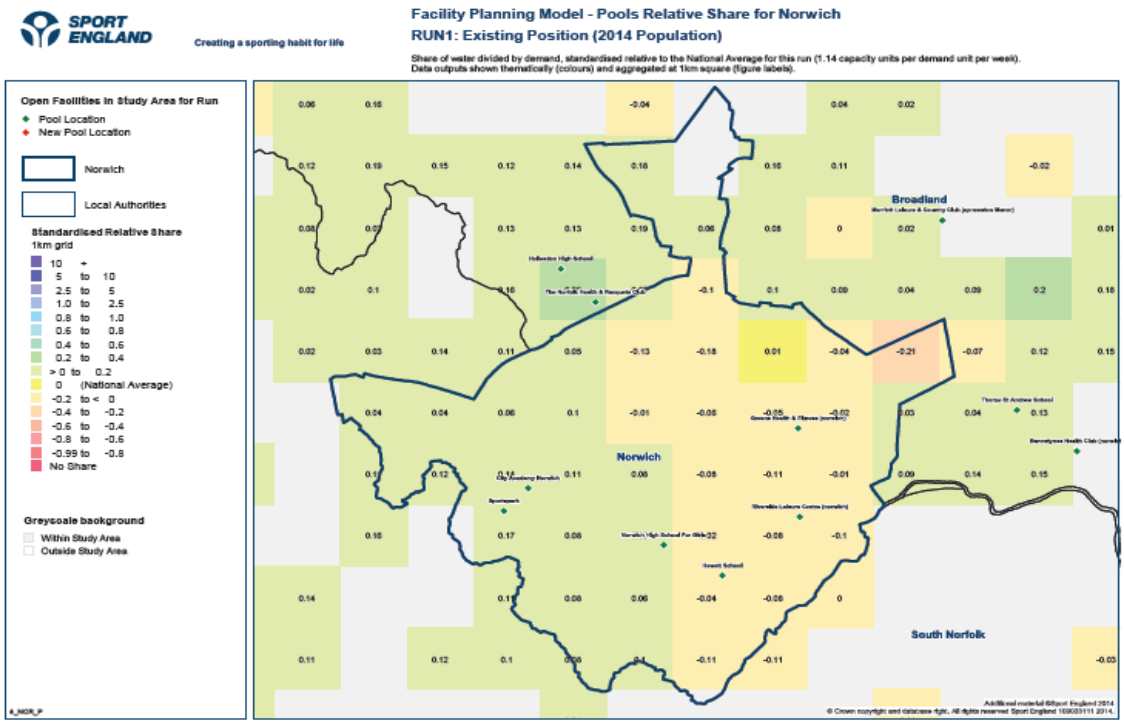
Map 19: Relative Share for access to swimming pools for Greater Norwich in 2014



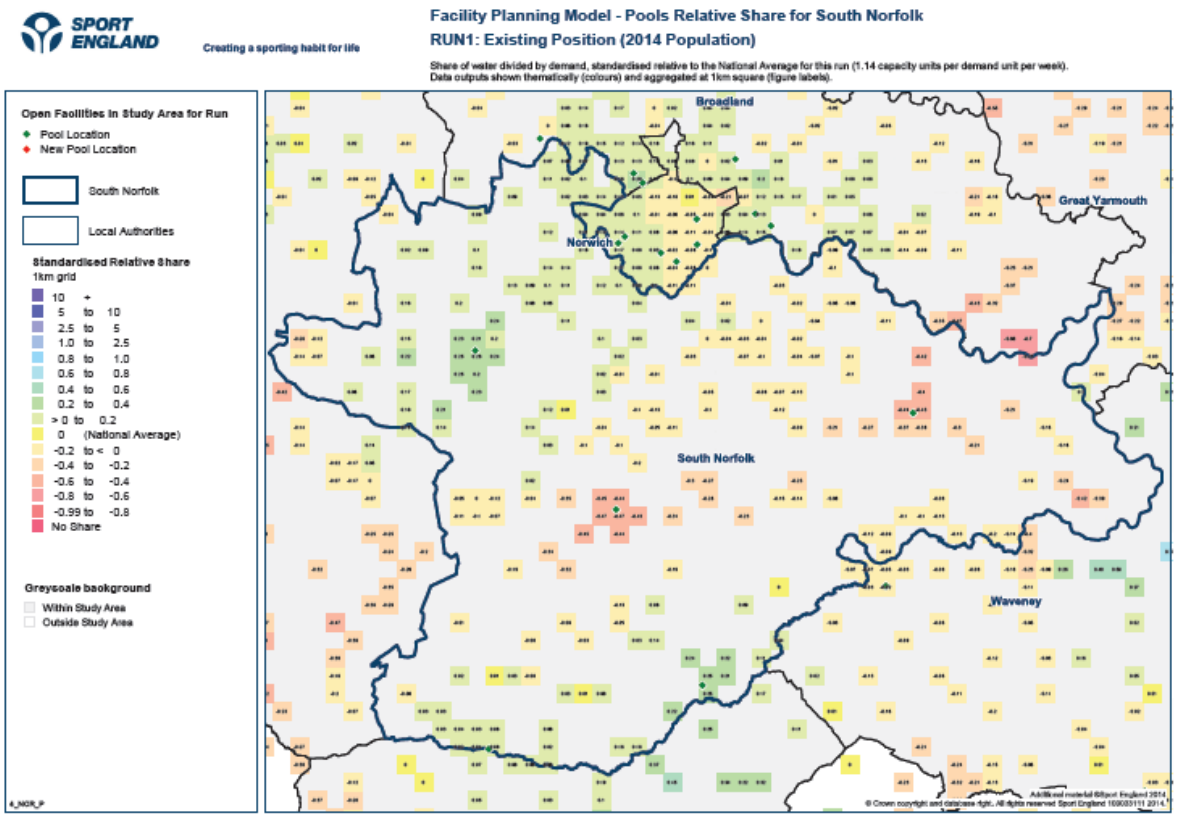
Map 20: Relative Share for access to swimming pools for Broadland in 2014



Map 21: Relative Share for access to swimming pools for Norwich in 2014



Map 22: Relative Share for access to swimming pools for South Norfolk in 2014



121. This ends the reporting of the main findings on the provision for swimming pools across Greater Norwich in 2014, run 1. The summary of main findings is set out next.

Summary of Main Findings on the supply, demand and access to swimming pools in 2014 (Run 1)

Introduction

122. Run 1 provides the baseline assessment of the supply and demand for swimming provision in Greater Norwich and in each of the three authorities in 2014. The summary is in text and tabular form and does not repeat the maps and detailed tables of findings in the main report.

Overall summary

123. Overall across Greater Norwich the demand for swimming in 2014 is met by the swimming pool supply, with only 7% of total demand being unmet demand. This equates to 303 sq metres of water and across Greater Norwich in 2014 there are 3,935 sq metres of water available for public use at all or some of the weekly peak period.

124. The swimming pool supply is very lopsided across Greater Norwich in terms of: the total number but small scale of school swimming pools, 55% of the swimming pool supply is on school sites; the very low supply of public recreational pay ands swim sites – only 22% of the total pool sites; the dominance and location of two of these public recreational swimming sites being in one authority - Norwich and with a combined total of 33% of the total water space available for public recreational swimming; no public recreational swimming pool sites in Broadland.

125. The combination of all these supply side factors is creating big differences in the distribution of demand for swimming and drawing significant levels of demand for swimming into Norwich.

126. The very lop sided description of swimming pool supply contrasts markedly with the very BALANCED demand for swimming across each of the three authorities. The variation in total demand for swimming is only 161 visits in the weekly peak period between Broadland (7817 visits) and South Norfolk (7,978 visits), whilst Norwich only has 1215 visits more than Broadland at 9,032 visits.

127. It is the distribution of demand for swimming across Greater Norwich which is the most significant finding in 2014. This coupled with the very big swimming pool supply on school sites and the small size of the school swimming pools.

128. The big issue is not about there being large amounts of unmet demand for swimming. It is about how full the pools are, where they are located, access to them and the big differences in distribution of demand created by the dominance of 2 public pool sites in one authority.

129. This is the headline assessment for 2014. These findings are set out in a bit more detail next with use of the data to support the findings.

130. The extent to which these findings change are set out following the run assessment of the impact of changes in population growth between 2014 – 2026.

Swimming Pool Supply

131. In 2014 there are a total of 22 swimming pools in Greater Norwich on 18 swimming pool sites. The pool supply is very even in terms of number of pools with 8 in Broadland and 7 each in Norwich and South Norfolk.

132. However the even number of sites is misleading and Norwich totally dominates in terms of supply in terms of SCALE with 1,962 sq metres of water available for public use, compared with 1,038 sq metres in Broadland and 934 sq metres in South Norfolk.

133. The dominance of swimming pool scale in Norwich hugely influences the distribution of swimming demand across Greater Norwich. This is commonly assumed but the 2014 assessment provides the detailed findings to set out what this means.

134. The key findings for swimming pool supply across Greater Norwich are;

- 10 of the 18 pool sites are on school sites and so community access to swimming is very important in terms of schools continuing to provide for community use;
- however the average size of the 10 school swimming pools is 163 sq metres of water. So an average of around a 20m x 4 lanes pool. The largest school pools are at Hewitt School and Norwich School for Girls both at 250 sq metres of water. (Note: for context a 25 m x 4 lane swimming pool is 212 sq m of water);
- given the average school pool size this means most of the schools pools are only suitable for learn to swim programmes or limited (in terms of swimming development programmes) club use;
- there are only 4 of the total 18 pool sites which are public pay and swim/casual recreational swimming pools. There are none in Broadland, two in Norwich and two in South Norfolk;
- this is creating a very lop sided provision of swimming pools for public recreational swimming – only 4 sites and restricted in geographical distribution. This lop sided provision is then reinforced by the geographical imbalance of the scale and location of the 2 public pools in Norwich;
- there is the very extensive Sportspark which is the largest recreational public swimming facility and has 850 sq metres of water. Some 21% of the total water space available for public use is located on one site and there are only three other sites which provide for public recreational swimming;
- the Riverside pool in Norwich is 450 sq metres of water and is 11% of the total water space available for public use across Greater Norwich; and

- so the 2 public pools in Norwich represent some 33% of the total water area available for public use in Greater Norwich. It is very much about going to these two venues for public swimming.

- This finding underlines the challenge/need to keep the school pools open for club use and learn to swim programmes – albeit the size of the school pools is limiting their effectiveness for club development.

135. These findings on pool supply are working their way through to the findings on the distribution of the swimming pool demand and how full the pools are.

Swimming pool supply and demand

136. Population totals are the start point for then determining the participation numbers for swimming. The total population across Greater Norwich in 2014 is 392,926 people, with 126,974 people in Broadland, 137,675 people in Norwich and 128,277 people in South Norfolk. So very similar population totals and as shown under the profiles of the population the profiles in terms of the dominate age bands, sports/activites played and frequency of participation are extremely similar for Broadland and South Norfolk and also very similar for Norwich.

137. The total supply and demand for swimming in visits across Greater Norwich in visits in the weekly peak period is set out in Table 17 below.

Table 17: Total swimming pool supply and demand in visits for Greater Norwich 2014

Name of authority	Total supply - number of visits per week weekly peak period	Total demand - number of visits per week weekly peak period
Greater Norwich	34,104	24,827
Broadland	8,996	7,817
Norwich	17,008	9,032
South Norfolk	8,100	7,978

138. As Table 17 shows the supply of swimming pools is very unbalanced because of the dominance of the two very large pools in Norwich. Whilst demand is quite balanced across the three authorities.

139. This overall supply and demand picture works its way through to the through to the distribution of demand across the three authorities as shown in Table 18 overleaf on the amount of demand from within each authority retained at pools in the same authority and the amount of demand exported by each authority.

140. Norwich is the huge pull with it retaining 88% of its own demand within Norwich whilst Broadland retains 60% of its demand and is exporting 40% of its demand. South Norfolk retains a much lower 50% and exports 50% of its own demand (Note: not all this demand from Broadland and South Norfolk goes to Norwich but a very large percentage of it does – details in the main report).

Table 18: Retained and exported demand for each of the three Greater Norwich authorities 2014

Name of authority	Satisfied demand RETAINED in each authority in visits and (percentage)	Satisfied demand EXPORTED (visits) and where to	Satisfied demand EXPORTED as % of total satisfied demand
Broadland	4,238 (60%)	2,919	40%
Norwich	7502 (88%)	987	12%
South Norfolk	3,664 50%)	3,677	50%

Used Capacity of the swimming pools (how full are the pools?)

141. Used capacity is a measure of usage at swimming pools and estimates how well used/how full facilities are. The Sport England facilities planning model is designed to include a 'comfort factor', beyond which, in the case of swimming pools, the pools are too full. The model assumes that usage over 70% of capacity is busy and the pool is operating at an uncomfortable level above that percentage.

142. The total number of visits expressed as used capacity at the 22 pools across 18 sites in Greater Norwich is 23,983 visits and this represents 70.3% of the pools total capacity.

143. In effect, the pools are right on the Sport England "comfort pools full" level of 70% of total capacity used.

144. The Greater Norwich average however does vary across each authority.

- In Broadland the used capacity of pools 64.4% of total capacity and so there is around 5% of pool capacity before the pools full comfort level is reached.
- In Norwich the used capacity of pools 74.9% of total capacity and so the estimate is that the pools are very full and some 5% above the pools full comfort level.
- In South Norfolk the used capacity of pools is estimated to be 67.3% of totals pool capacity used and so some 3% of pool capacity before the pools full comfort level of 70% is reached.

145. Even within the authority wide averages there are some variations at individual pool sites and Table 19 overleaf sets out. It is the public pools which have very the highest levels of used capacity reflecting they operate on a full public access basis and provide for the full range of swimming programmes: - casual swimming; lane and fitness swimming; schools programmes; learn to swim programmes; swimming development programmes. Also some of the school pools which whilst not providing the full range of swimming programmes can be in locations where there is high demand for some form of community use and there could also be limited public sector swimming pools within the same catchment area.

146. It is the private and commercial pools which operate on a membership system where the pool capacity used is lower and this is reflected in the averages for used capacity across each Council.

Table 19: Percentage of swimming pool capacity used for all pools in Greater Norwich in 2014

Name of facility	Type	Area	Year built	Year refurb	Public/Commercial	% of Capacity used	% of capacity not used
Norwich						**75%**	**25%**
CITY ACADEMY NORWICH	Main/General	85	1960		P	24%	76%
GREENS HEALTH & FITNESS (NORWICH)	Main/General	250	2001		C	47%	53%
HEWETT SCHOOL	Main/General	250	1960	2006	P	64%	36%
NORWICH HIGH SCHOOL FOR GIRLS	Main/General	250	2000	2006	P	98%	2%
RIVERSIDE LEISURE CENTRE (NORWICH)	Main/General	338	2003		P	96%	4%
RIVERSIDE LEISURE CENTRE (NORWICH)	Learner/Teaching/Training	101					
SPORTSPARK	Main/General	850	2000	2008	P	93%	7%
South Norfolk						**67%**	**33%**
ARCHBISHOP SANCROFT HIGH SCHOOL	Main/General	188	1980	2007	P	59%	41%
DISS SWIM & FITNESS CENTRE	Main/General	313	1987	2004	P	69%	31%
DISS SWIM & FITNESS CENTRE	Learner/Teaching/Training	38					
LONG STRATTON HIGH SCHOOL	Leisure Pool	90	1960	2008	P	58%	42%
WYMONDHAM LEISURE CENTRE	Main/General	338	1999		P	63%	37%
WYMONDHAM LEISURE CENTRE	Learner/Teaching/Training	81					
Broadland						**64%**	**36%**
AYLSHAM HIGH SCHOOL	Main/General	92	1960	2010	P	100%	0%
BANNATYNES HEALTH CLUB (NORWICH)	Main/General	160	1999		C	56%	44%
HELLESDON HIGH SCHOOL	Main/General	136	1964	2009	P	100%	0%
MARRIOTT LEISURE &	Leisure Pool	169	1991	2004	C	92%	8%

Name of facility	Type	Area	Year built	Year refurb	Public/Commercial	% of Capacity used	% of capacity not used
COUNTRY CLUB (SPROWSTON MANOR)							
TAVERHAM HALL PREPARATORY SCHOOL	Main/General	135			P	49%	51%
THE NORFOLK HEALTH & RACQUETS CLUB	Main/General	325	2006		C	56%	44%
THE NORFOLK HEALTH & RACQUETS CLUB	Leisure Pool	6					
THORPE ST ANDREW SCHOOL	Main/General	200	1950		P	31%	69%
						61%	39%

147. So the pools estimated to be most full are in Norwich: Riverside with 96% of pool capacity used in the weekly peak period; Norwich School for Girls with 98% of pool capacity used; and Sportspark with 93% of pool capacity used. In South Norfolk it is Diss swimming pool with 69% of pool capacity used and Wymondham Leisure Centre with 63% of pool capacity used.

148. In Broadland it is Aylsham High School and Hellesdon High School at 100% of pool capacity used.

149. So whilst overall across Greater Norwich there is an average of pool capacity used which means the pools are comfortably full there it is the distribution of the demand which is creating an imbalance with very high estimated used capacity at 9 out of the total 18 sites.

150. Redistribution of demand to create an overall balance in the level of pool capacity use is the preferred route to addressing this problem To do this by a managed programme of intervention where all the range of swimming activites and types of use between pay and recreational swimming and club based swimming is identified and managed across the sites. The challenges in achieving this intervention are that;

- the pool sites are located across three local authorities;
- there is a wide range of providers. With local authority providers in Norwich and South Norfolk but not in Broadland;
- the Sportspark venue operating as effectively a Greater Norwich venue/catchment as shown by the retained and export of swimming demand across the three authorities, with Norwich having much more capacity than there is demand in Norwich but the Sportspark and Riverside venues are effectively full because of the location of demand in Broadland and South Norfolk making these two venues the nearest location for many residents in these two authorities;

To reiterate Norwich is retaining some 88% of its own demand for swimming in Norwich. In addition Broadland is exporting 41% of its demand for swimming and which is met outside Broadland, with some 81% (of the 41% export total) going to Norwich. Whilst South Norfolk is exporting some 50% of its own demand for swimming and 67% (of the 50%) is being met in Norwich.

In effect Norwich has the capacity to meet 88% of its own demand for swimming and is absorbing a high level of imported demand from the neighbouring two authorities.

- the schools are independent and determine their approach to community use in terms of if they provide and how much. The schools community use of the pools is a combination of club based swimming and learn to swim programmes; and

- the size of the school pools with the exception of Hewitt School and Norwich High School for Girls (both 250 sq metres of water) are around 140 – 160 sq metres of water a 20m x 3 or 4 lane pool. The size of the pool plus limited changing areas and most importantly the inappropriate role of schools to provide for full public access pay and swim programmes makes them inappropriate venues for wider based community use.

151. Overall these are very big challenges to overcome in taking interventions to achieve a more balanced programme of use and levels of pool capacity used across and within each of the three local authorities.

152. The significance and scale of this challenge will be set out after assessing the impact of population growth across the Greater Norwich area between 2014 – 2026. This is the content of run 2.

Run 2: the supply and demand for swimming in 2026. Based on the projected population change across Greater Norwich and the wider study area between 2014 – 2026

Overview

153. Run 2 is the STRATEGIC ASESSMENT of what the future supply and demand for swimming could be across Greater Norwich based on the projected changes in demand from swimming by the population change both in growth of the population and aging of the existing core resident population between 2014 – 2026.

154. The population projections to 2026 for the Greater Norwich authorities have been provided by Greater Norwich on behalf of the partner authorities. They are based on the housing projections for the area with assumptions made on an occupancy basis which has been agreed with each authority to provide the population data required for detailed sports needs analysis. Where possible population increases have been accounted for in the growth areas based on site allocations and impact on existing settlements.

155. In run 2 the swimming pool supply between 2014 – 2026 is assumed not to have changed and it remains as at 2014 in quantity and locations. The existing pool stock will obviously age between 2014 – 2026.

156. So run 2 is based on assessing the impact on the scale and location of demand changes created by population change, both growth and aging of the core resident population. The aging of the core resident population between 2014 – 2026 will affect the rates of swimming participation. By 2026 there could be fewer people in the core age bands who swim most frequently and so any overall increase in total population can be offset by this aging/lower demand from the core resident population.

157. The features of the 2026 assessment are to asses how the existing pool supply and the changes in demand interact so, for example, is there a need to create additional swimming pools and if so where should these be located? How does the scale and the location of the existing swimming pools match up to the demand picture in 2026? Do these pool locations and the age and condition of these pools at these locations provide the best provision for pools in 2026 and beyond?

158. The findings reported on in run 2 are in the same sequence and for the same headings/categories of - total supply, accessibility to swimming pools, total demand, satisfied demand, unmet demand, used capacity and relative share. With the same mapped outputs included and a summary of the main findings at the end of the report on run 2.

159. In order to be able to compare the run 1 findings with the run 2 findings for each set of tables the findings for each of the 2 runs are set out in the same table. For example, total supply has

the Greater Norwich findings for run 1 column followed by the column reporting on run 2 and so on for each authority. Given the width of this table now with findings for both runs included it is not possible in the report format to include the findings for runs 1 and 2 for the neighbouring authorities.

Table 20: Total Supply

Total Supply	Greater Norwich 2014	Greater Norwich 2026	Broadland 2014	Broadland 2026	Norwich 2014	Norwich 2026	South Norfolk 2014	South Norfolk 2026
Number of pools	22	22	8	8	7	7	7	7
Number of pool sites	18	18	7	7	6	6	5	5
Supply of total water space in sqm	4505.4	4505.4	1223.4	1223.4	2123.8	2123.8	1158.3	1158.3
Supply of publicly available water space in sqm (scaled with hrs avail in pp)	3935.1	3935.1	1038.0	1038.0	1962.5	1962.5	934.6	934.6
Supply of total water space in VPWPP	34104	34104	8996	8996	17008	17008	8100	8100
Waterspace per 1000	11.47	10.43	9.64	8.86	15.43	14.18	9.03	8.03

160. As set out in the overview for run 2 there are no changes in the supply of swimming pools from run1. So the findings on the total supply of swimming pools set out in Table 20 above remain unchanged in run 2 from the run 1 findings.

161. The key headlines findings are:

- there are 22 swimming pools in Greater Norwich on 18 swimming pool sites. So at most sites there is only one swimming pool. So small scale independent sites with higher costs of managing and maintaining small scale individual pools;
- Broadland has the highest number of pools with 8 pools at 7 sites. However none of these pools are public provision for casual recreational swimming;
- the total amount of water space at the 18 pool sites across Greater Norwich is 4,505 sq m of water. However when assessed on the basis of water space available for public use this reduces to 3,935 sq m of water, so a reduction of 570 sq m of water or 12.6% of the total water space is not available for public use; and
- total swimming pool capacity can cater for 3,935 visits in the weekly peak period.

162. The only change in swimming pool supply is the impact population growth has on the benchmark of water space per 1,000 population. This will decrease because pool supply is unchanged but population has increased. Norwich remains as the authority with the highest provision at 14.1 sq metres of water per 1,000 population in 2026, a decrease from 15.4 sq metres of water in 2014.

163. In Broadland there is 8.8 sq metres of water per 1,000 population and there is 9.6 sq metres of water in 2014. South Norfolk has 8 sq metres of water per 1,000 population and it is 9 sq metres in 2014.

164. For context the East Region average is 11.2 sq metres of water per 1,000 population in 2026 and for England wide it is 11.6 sq metres of water per 1,000 population.

165. So Norwich has a level of provision which is considerably above the regional and national average, whilst Broadland and South Norfolk are considerably below the regional and national average.

Accessibility to swimming pools by travel modes of car and walking

Car catchment area findings

166. In terms of the access to swimming pools based on travel modes of car and walking, the population growth and its allocation between 2014 – 2026 does NOT change the number of pools which are accessible by each travel mode.

167. Set out overleaf as Map 23 for the Greater Norwich area and within each authority are the number of pools which are accessible based on the location and 20 minute drive time of the catchment area of the swimming pools.

168. The key findings are;

- overall there is a high level of access to pools based on car travel;
- in most of the land area of Broadland and South Norfolk (shaded cream) residents in these areas have access to between 1 – 5 swimming pools based on a 20 minute drive time catchment of pool locations;
- in the areas shaded lighter green of these 2 authorities residents have access to 5 – 10 pools based on the car drive time catchment area; and
- in the darker green areas of all three authorities and virtually all of the Norwich land area residents have access to between 10 – 15 pools based on the car travel catchment.

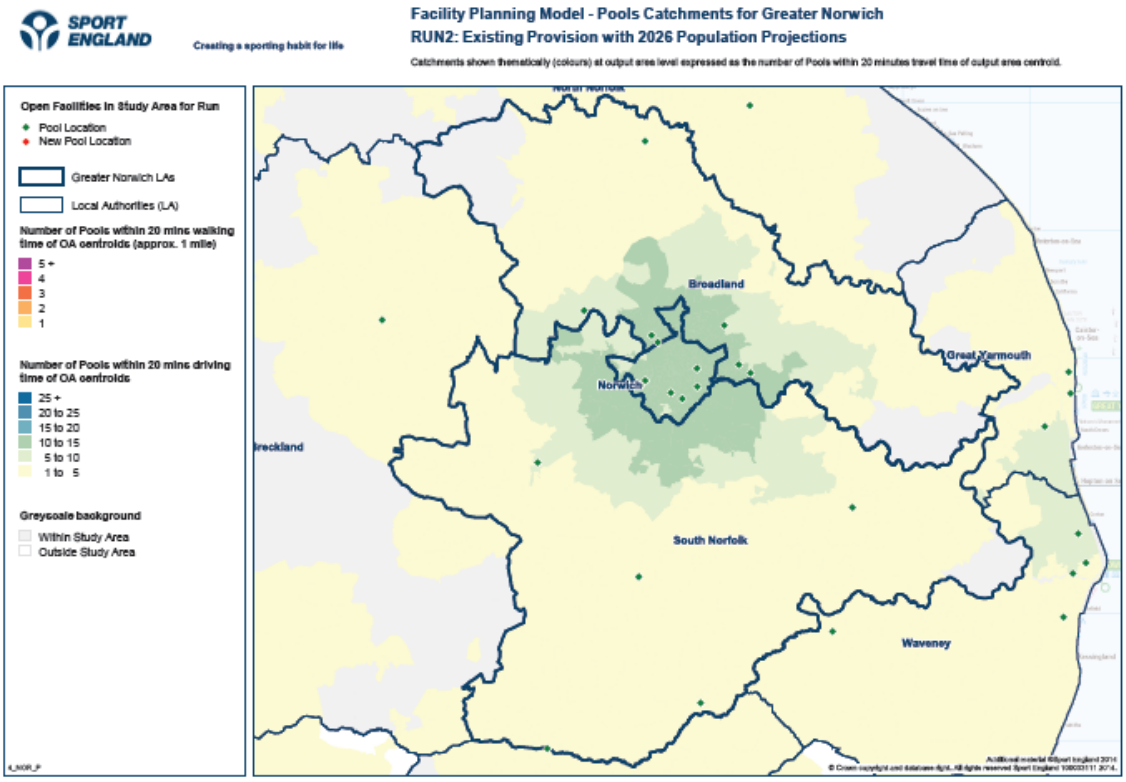
169. Car travel is the dominate travel mode to swimming pools and in 2026 it is estimated that 82% of all visits to pools across Greater Norwich are by car, also unchanged form 2014.

170. In Norwich there is a very high percentage of the population who do not have access to a car and in 2026 this is estimated to be 32% of the population, also unchanged form 2014. So in Norwich the estimate is that 67.4% of al visits to pools are by car, 66.9% in 2014.

171. So as in 2014 access to pools in 2026 based on the public transport and walking catchments is very important in Norwich.

172. In Broadland the estimate is that 90% of al visits to pools are by car, unchanged from 2014 and in South Norfolk it is 91%, also unchanged.

Map 23: Location and access to swimming pools based on car travel and the catchment area of pools for a 20 minutes drive time. Greater Norwich 2026



Walking catchment area findings

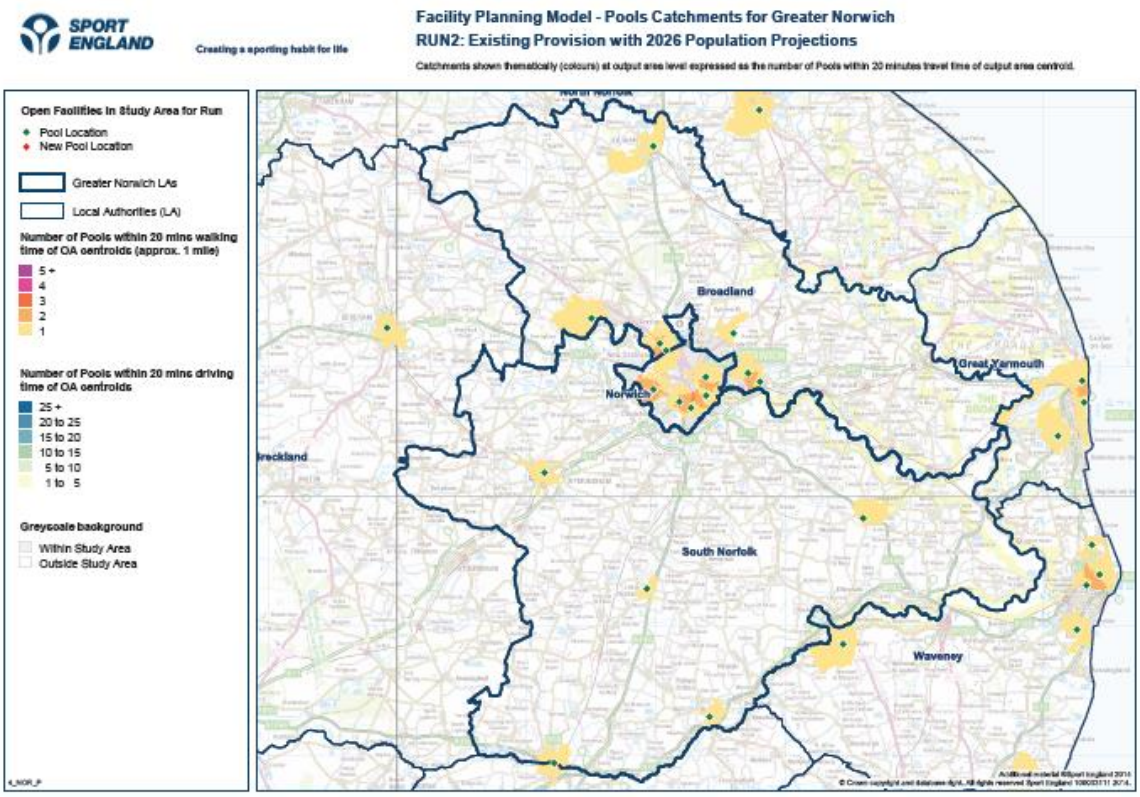
173. In terms of the 20 miunutes/1 mile walking catchment area the findings are also unchanged from run 1. The walk to catchment area by definition is very tight to the actual pool locations and there is only a small area around each pool (shaded brown) which is inside thee walk to catchment area. These are the areas shaded light brown.

174. Again the findings for the percentage of visits to pools by walking are virtually unchanged between runs 1 and 2. The fpm assessment is that across Greater Norwich some 10.5% of all visits to pools are on foot in 2026 (10.7% in run 1), with 5.8% in Broadland (5.4% in run 1), a much higher 19% in Norwich because of the 32% of the Norwich population without access to a car (19.6% in run 1) and 5.4% in South Norfolk (5.6% in run 1).

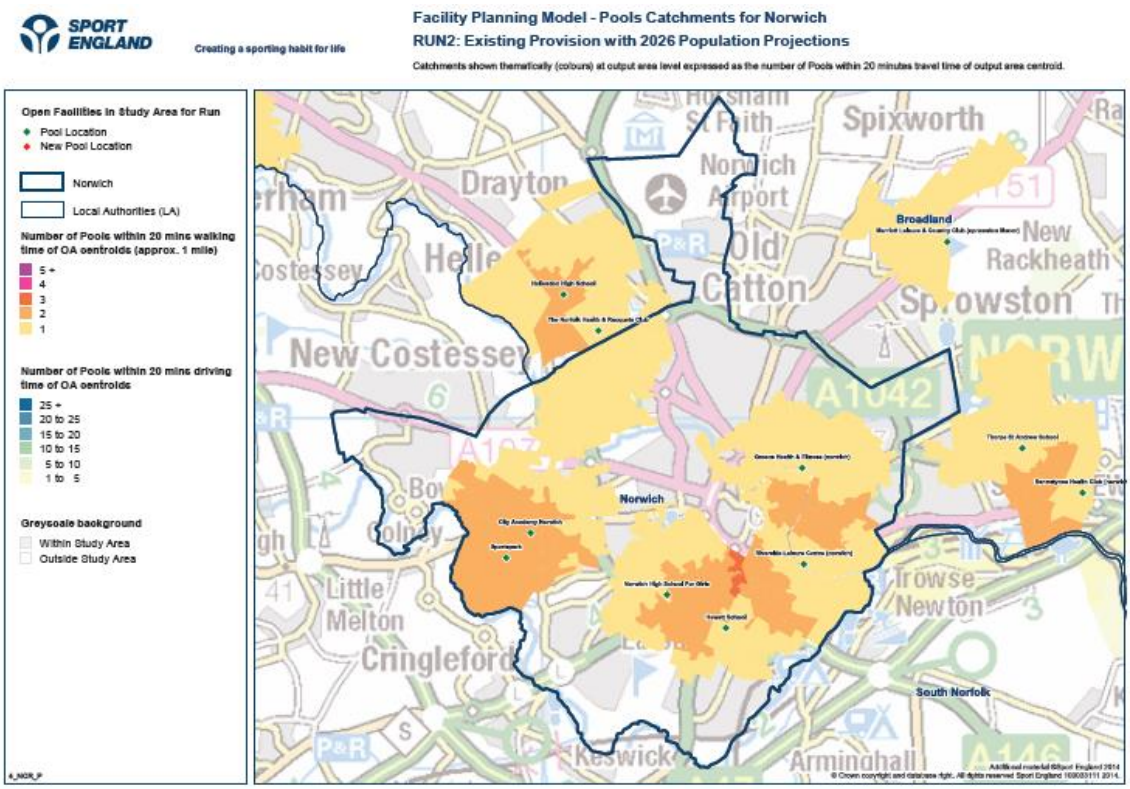
175. The important finding regarding Norwich is that around 50% of the land area of the city is inside the walk to catchment area of a swimming pool. To identify this more clearly Map 24 is

followed by Map 25 which shows the Norwich area findings for the areas covered by the walk to catchment area of a swimming pool.

Map 24: Location and access to swimming pools based on the walking 20 minutes/1 mile catchment area of pools. Greater Norwich 2026



Map 25: Location and access to swimming pools based on the walking 20 minutes/1 mile catchment area of pools. Norwich City 2026



Summary of findings on accessibility and travel patterns to pools 2026

176. The significant finding on accessibility to pools and travel patterns is simply – no change between 2014 and 2026. The pool supply is fixed between the two years because there are no changes in the number and location of pools. On the demand the location of the new housing growth areas is not impacting on changing the accessibility levels to numbers of pools.

177. This is largely because car travel is the dominate travel mode to swimming pools with around 82% of all visits to pools across Greater Norwich being by car in 2026 and based on a 20 minute drive time catchment area for swimming pools, it means that all of the Greater Norwich area has access to at least one swimming pool by car travel and it increases progressively.

178. In the urban area of Broadland and South Norfolk (as shown on Map 23) there is access to between 5 – 10 pools based on the catchment area of a greater number of pools. Then In Norwich itself where there is the greatest density of pools it means residents have access to between 10 – 15 pools based on the car travel catchment area.

Table 21: Total Demand

Total Demand	Greater Norwich 2014	Greater Norwich 2026	Broadland 2014	Broadland 2026	Norwich 2014	Norwich 2026	South Norfolk 2014	South Norfolk 2026
Population	392926	431920	126974	138031	137675	149729	128277	144160
Swims demanded – vpwpp	24827	26890	7817	8322	9032	9755	7978	8813
Equivalent in waterspace – with comfort factor included	4092.4	4432.5	1288.5	1371.8	1488.8	1608.0	1315.1	1452.7
% of population without access to a car	17.8	17.8	10.9	10.9	32	32	11	11

179. The changes in total demand for swimming will be the key driver of the changes in provision for swimming across Greater Norwich between 2014 and 2026. The changes in total demand are driven by two factors;

- the first is changes in the total population between 2014 – 2026. In run 2 the total population across Greater Norwich in 2026 is estimated to be 431,920 people. This is an increase of 38,994 people, or, a 9.9% increase over the total Greater Norwich population of 392,926 people in 2014; and

- the second factor is the aging of the core resident population between 2014 - 2026. The age structure of the population and the participation rate and frequency of swimming by the resident population will change between 2014 – 2026. It could be the 12 year aging of the resident population means that in 2026 there are less people in the most popular age ranges for swimming and who swim less frequently, (or vice versa). So any increase in total population and the rate and frequency of their swimming participation could be offset by a reduced total demand for swimming by the aging of the core resident population.

180. By far the second factor - the aging of the core resident population - is the biggest influence on demand for swimming because this represents the 392,926 people in 2014 and the growth in population between 2014 - 2026 is 38,994 people.

181. The total demand figure for swimming includes both the growth in population and the demand for swimming from the impact of the aging of the core resident population between 2014 – 2026. (Note: the Sport England participation rates and frequency of swimming participation for five age bands and for both sexes are set out in Appendix 2 of the report).

182. The quite narrow range of population totals in each authority in 2014 does expand a little by 2026.

183. Table 22 below summarises the population changes between 2014 – 2026. Table 23 below that then sets out the impact of these changes and aging of the core resident population between 2014 – 2026.

Table 22: Population totals for Greater Norwich and for each authority 2014 - 2026

Authority	Total Population 2014	Total Population 2026	Total Increase in Population 2014 - 2026	% Increase in Total Population 2014 - 2026
Greater Norwich	392,926	431,920	38,994	9.9%
Broadland	126,974	138,031	11,057	8.7%
Norwich	137,675	149,729	12,054	8.7%
South Norfolk	128,277	144,160	15,883	12.3%

Table 23: Changes in total demand for swimming for Greater Norwich and for each authority 2043 - 2026

Authority	Total Demand 2014	Total Demand 2026	Increase in Total Demand 2014 - 2026	% Increase in Total Demand 2014 - 2026
Greater Norwich	24,827	26,890	2,063	8.3%
Broadland	7,817	8,322	505	6.4%
Norwich	9,032	9,755	723	8%
South Norfolk	7,978	8,813	835	10.4%

184. The key findings from both tables are:

- for each area the total percentage in crease in population is quite high but spread over the 12 years it is less than 1% a year except in South Norfolk where it is just over 1% a year;
- the total population increase for Greater Norwich between 2014 – 2026 is 9.9% and this is creating, along with the aging of the existing core resident population, an increase in total demand for swimming of 8.3%between the two years;

- there are similar percentage increase in population and total demand for swimming for each of the 3 authorities. In South Norfolk the population increase is a little higher at 12.3% and so is the increase in total demand at 10.4%;

- the annual throughput of a 25m x 4 lane swimming pool based on Sport England data is 98,000 visits (not people). Based on the projected population growth total of an increase of 38,994 then a very crude assessment would be that all of this population would have to go swimming 2.5 times a week to reach the annual throughput figure for a 25m x 4 lane pool. This is a wrong assessment to make but it does indicate the scale of difference between the projected population increase and the annual throughput for this size of swimming pool; and

- in terms of the increase in demand the projected increase, again based on population growth and aging of the core resident population is only 2,063 visits, despite the population increase of nearly 39,000 visits. This is an illustration of how the aging of the core resident population is offsetting increases in demand for swimming for population growth.

185. Overall the key finding is that the projected increase in population and aging of the core resident population between 2014 – 2026 is creating very low levels of increases in the demand for swimming, both at Greater Norwich level and in each of the three authorities.

186. These findings on population change and total demand which are not high will have knock on effects in the changes/increases in satisfied demand unmet demand and used capacity of pools. Given the low scale of the increases in total demand the baseline position in run 1 in 2014 will be continued in run 2 to 2026.

187. If there had been a much bigger increase in total demand in any one authority of say a 20+% increase from both population increase and the aging of the resident population, then this would have impacted on big changes in levels of satisfied demand, unmet demand and used capacity of pools. Plus changes in how much demand for pools is retained, how much demand is exported and how much demand is imported.

188. Given this has not happened, the findings under the subsequent headings are going to follow a consistent trend and pattern of small changes.

Table 24: Supply and Demand Balance

Supply/Demand Balance	Greater Norwich	Greater Norwich	Broadland	Broadland	Norwich	Norwich	South Norfolk	South Norfolk
	2014	2026	2014	2026	2014	2026	2014	2026
Supply - Swimming pool provision (sqm) scaled to take account of hours available for community use	3935.1	3935.1	1038.0	1038.0	1962.5	1962.5	934.6	934.6
Demand - Swimming pool provision (sqm) taking into account a 'comfort' factor	4092.4	4432.5	1288.5	1371.8	1488.8	1608.0	1315.1	1452.7
Supply / Demand balance - Variation in sqm of provision available compared to the minimum required to meet demand.	-157.36	-497.45	-250.5	-333.78	473.65	354.48	-380.52	-518.14

189. To reiterate the supply and demand balance section of the report is the ONLY heading which does not report the findings based on the catchment area of swimming pools. Supply and demand balance provides a 'global' view of provision – it compares total demand generated **within Greater Norwich and in each of the authorities** with the total supply of pools **within Greater Norwich and in each of the authorities.** It therefore represents an assumption that ALL the demand for swimming in Greater Norwich is met by ALL the supply of swimming pools in Greater Norwich (Note: it does exactly the same for the other local authorities in the study area).

190. The reason for presenting the supply and demand balance is because some local authorities like to see how THEIR total supply of swimming pools compares with THEIR total demand for swimming. So supply and demand balance presents this comparison.

191. The supply and demand balance findings follow a consistent trend between 2014 – 2026. Where there was a negative balance in 2014 this increases in 2026, as it does for authorities which have a positive balance.

192. Greater Norwich had a negative balance of 157 sq metres of water in 2014 and this increases to a negative balance of 497 sq metres of water by 2026. Similarly Broadland's negative balance increases from 250 sq metres of water in 2014 to 333 sq metres of water in 2026. Finally South Norfolk had a negative balance of 380 sq metres of water in 2014 and this is 518 sq metres of water by 2026.

193. The exception is Norwich which had a positive balance whereby supply exceeded demand by 473 sq metres of water in 2014 and this decreases but remains a positive balance of 354 sq metres of water in 2026.

194. Overall there is no shift in authorities changing from a positive or negative balance but some small changes within each authority. So if Greater Norwich was a closed economy with all the supply having to be met by all of the demand then it would be challenging because there is negative balance of 497 sq metres of water. However, the impact of the supply and demand being assessed on the catchment area of pools and the impact of the import and export of demand across Greater Norwich does address this potential problem. This will be reported on under the subsequent headings of satisfied demand, unmet demand and used capacity.

Table 25: Satisfied Demand

Satisfied Demand	Greater Norwich	Greater Norwich	Broadland	Broadland	Norwich	Norwich	South Norfolk	South Norfolk
	2014	2026	2014	2026	2014	2026	2014	2026
Total number of visits which are met	22986	24942	7157	7694	8488	9128	7340	8120
% of total demand satisfied	92.6	92.8	91.6	92.4	94	93.6	92	92.1
% of demand satisfied who travelled by car	82.02	82.17	90.61	90.09	66.93	67.46	91.1	91.2
% of demand satisfied who travelled by foot	10.79	10.55	5.46	5.85	19.69	19.02	5.68	5.46
% of demand satisfied who travelled by public transport	7.19	7.29	3.92	4.06	13.38	13.51	3.23	3.34
Demand Retained	21821	23815	4238	4683	7502	8133	3664	3899
Demand Retained -as a % of Satisfied Demand	94.9	95.5	59.2	60.9	88.4	89.1	49.9	48
Demand Exported	1165	1127	2919	3011	987	995	3677	4221
Demand Exported -as a % of Satisfied Demand	5.1	4.5	40.8	39.1	11.6	10.9	50.1	52

195. Satisfied demand represents the proportion of total demand that is met by the capacity at the swimming pools from residents who live within the driving, walking or public transport catchment area of a pool. Across Greater Norwich in run 2 some 24,942 visits or, 82.1% of the total demand for swimming across the area is satisfied demand. Whilst there is an increase in the total number of satisfied demand visits from run 1 of 1,956 visits, the level of satisfied demand in percentage terms decreases but only by 0.15% of total demand.

196. The same pattern is not followed in each of the three authorities. Broadland satisfied demand increases decreases by 537 visits to a total of 7,694 visits, up from 7,157 visits in 2014. The percentage of satisfied demand increases 0.8% to 92.4% from 91.6% of total demand in 2014.

197. In Norwich satisfied demand increases in visits to a total of 9,128 visits, up from 8,488 visits in 2014. However in percentage terms there is a very slight decrease of 0.4% in satisfied demand to 93.6% of total demand in 2026.

198. Finally in South Norfolk satisfied demand increases by 780 visits in 2026 to a total of 8,120 visits, up from 7,340 visits in 2014. The percentage of satisfied demand is virtually unchanged with a 0.1% increase in satisfied demand.

199. Overall on satisfied demand and up to 2026 the projected population changes and the location of the growth across Greater Norwich and in each of the three authorities is making virtually no impact in the level of demand for swimming pools which can be met. The estimate is that satisfied demand increases by 0.2% to a total of 92.8% of the total demand for swimming which can be met by the number and location of the swimming pools across Greater Norwich. There are similar very high percentages and little change in each of the authorities.

200. The reason for the 8.8% increase in total demand across Greater Norwich between the two years being absorbed is because the total demand for swimming in 2026 is still lower than the total supply – with total demand being 26,890 visits in the weekly peak period and total supply being 34,104 visits.

201. So the quantity or locations of swimming pool provision is not the issue, it is the aging of the stock and the quality of the pools which is the issue. Plus the dominance of small scale school pools which are both old and can only cater for a narrow range of swimming activites. So the impact in 2026 is not on the demand side for swimming pool provision it is in the quality of the swimming pool supply.

202. As mentioned car travel is the predominate choice of travel mode to pools. This changes by 0.15% across Greater Norwich up to 2026. As already reported Norwich has the highest level of the population without access to a car at 32% of the population and unchanged between the two years. So the percentage of visits to pools by car in 2026 is much lower than for elsewhere at 67.4% and up by 0.5%.

Retained demand

203. Retained demand is how much of the total satisfied demand from one particular area is met by the swimming pools in that area. For example how much of the Norwich demand for swimming is met by the pools in Norwich?

204. Once the retained demand is established the model is then able to identify how much of each area's own demand is met outside their area. This is the exported demand.

205. The level of retained demand and exported demand in 2026 are virtually unchanged from 2014 for Greater Norwich and in each of the three authorities. The variations are less than 1% but there are still the large exports of demand from Broadland and South Norfolk to Norwich – as reported under run 2. In effect the pull of the much larger swimming pool supply in Norwich and the assessment that for many residents of both Broadland and South Norfolk the nearest pool to where they live is in Norwich means that the pattern established in run 1 of large exports of demand from these authorities to Norwich is continued but decreases very slightly by 2026.

206. The location of the new housing and population growth is allowing both Broadland and South Norfolk to retain a slightly higher level of its own demand at pools located in their own authority. The findings for on retained and exported demand are set out below in Table 26

below. Given the very small changes the maps for retained and exported demand set out in run 1 they are not repeated here for run 2.

Table 26: Changes in retained and exported demand for swimming for Greater Norwich and for each District Council 2014 - 2026

Authority	% of Retained Demand 2014	% of Retained Demand 2026	% of Exported Demand 2014	% of Exported Demand 2026
Greater Norwich	94.9%	95.5%	5.1%	4.5%
Broadland	59.2%	60.9%	40.8%	39.1%
Norwich	88.4%	89.1%	11.6%	10.9%
South Norfolk	49.9%	48%	50.1%	52%

Table 27: Unmet Demand

Unmet Demand	Greater Norwich	Greater Norwich	Broadland	Broadland	Norwich	Norwich	South Norfolk	South Norfolk
	2014	2026	2014	2026	2014	2026	2014	2026
Total number of visits in the peak, not currently being met	1841	1949	660	629	544	627	638	693
Unmet demand as a % of total demand	7.4	7.2	8.4	7.6	6	6.4	8	7.9
Equivalent in Water space m2 - with comfort factor	303.47	321.23	108.73	103.64	89.61	103.36	105.13	114.21
% of Unmet Demand due to ;								
Lack of Capacity -	3.7	5.8	3.9	2.2	0.0	5.8	6.6	9.0
Outside Catchment -	96.3	94.2	96.1	97.8	100.0	94.2	93.4	91.0
Outside Catchment;	96.3	94.2	96.1	97.8	100.0	94.2	93.4	91.0
% Unmet demand who do not have access to a car	66.66	67.57	52.97	57.21	94.9	89.37	56.75	57.25
% of Unmet demand who have access to a car	29.66	26.64	43.16	40.56	5.1	4.78	36.64	33.78
Lack of Capacity;	3.7	5.8	3.9	2.2	0.0	5.8	6.6	9.0
% Unmet demand who do not have access to a car	0.7	2.8	0.8	1.1	0.0	5.4	1.1	2.0
% of Unmet demand who have access to a car	3.0	3.0	3.0	1.1	0.0	0.5	5.6	7.0

207. To repeat, unmet demand is defined in two ways: demand for swimming which cannot be met because (1) there is too much demand for any particular pool within its catchment area; or (2) the demand is located outside the catchment area of any pool and is then classified as unmet demand.

208. Across Greater Norwich the total unmet demand in run 2 is 1,949 visits. This is a very very small increase of 108 visits over the run 1 total of 1,841 visits. Unmet demand equates to 7.2% of total demand and is 321 sq metres of water. In run 1 unmet demand was 7.4% of total demand and in water total unmet demand equated to 303 sq metres of water based on the pools full comfort level of 70% of pool capacity used. So there is an increase of 18 sq metres of water between 2014 - 2026.

209. In effect, in which ever way it is assessed, by visits, percentages, or, sq metres of water unmet demand is virtually unchanged. For context the increase in unmet demand between 2014 – 2026 is 8.4% of a 25m x 4 lane pool.

Why is unmet demand for swimming unchanged between 2014 – 2026?

210. The reason why unmet demand does not change between 2014 and 2026 is because as already reported, total demand for swimming in 2026 is still less than total supply and there is enough capacity across the existing 22 swimming pools to absorb more demand.

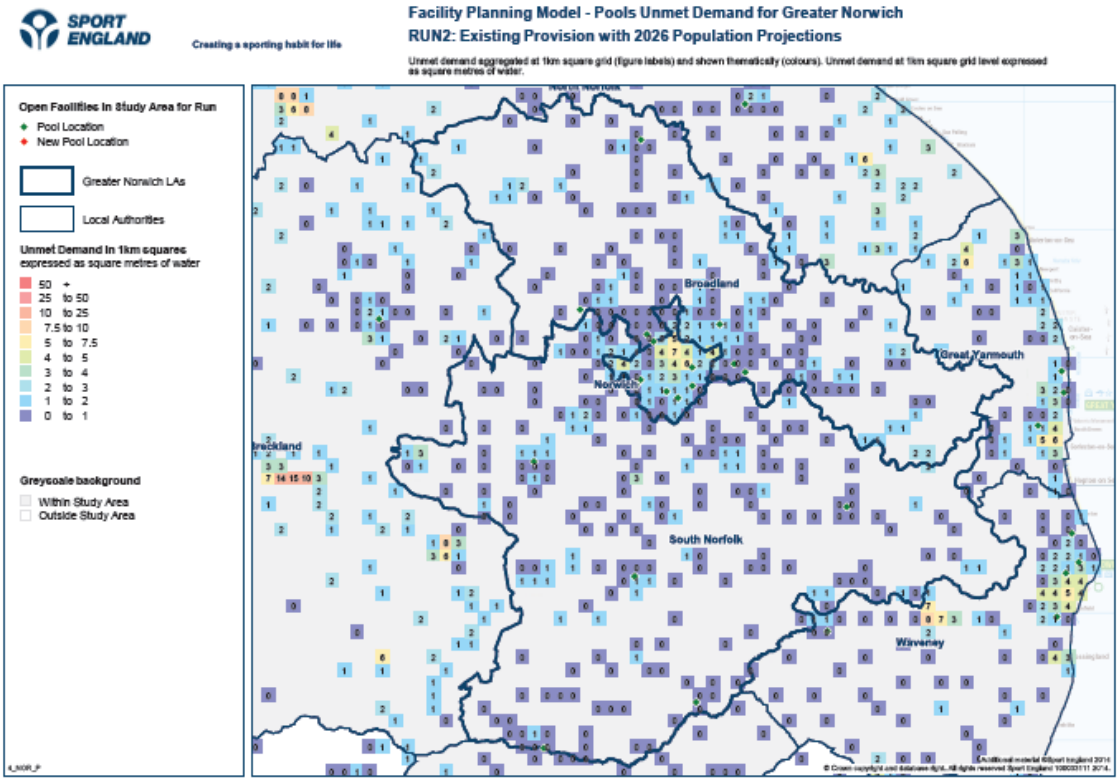
211. Also to repeat the aging of the core resident population is "taking out" demand for swimming as there appear to be less population in the age bands in 2026 who swim most frequently when compared with 2014. Finally the projected increase in total demand for swimming across Greater Norwich is only 8.3% over the 12 years, so a 0.7% increase each year, which is a small increase in demand.

212. It is the first definition of unmet demand, ie demand located outside the catchment area of a swimming pools and this is the 20 minutres/1 mile walking catchment area, which is the biggest source of unmet demand at 94.2% of the total unmet demand and which equates to 302 sq metres of water across Greater Norwich in 2026.

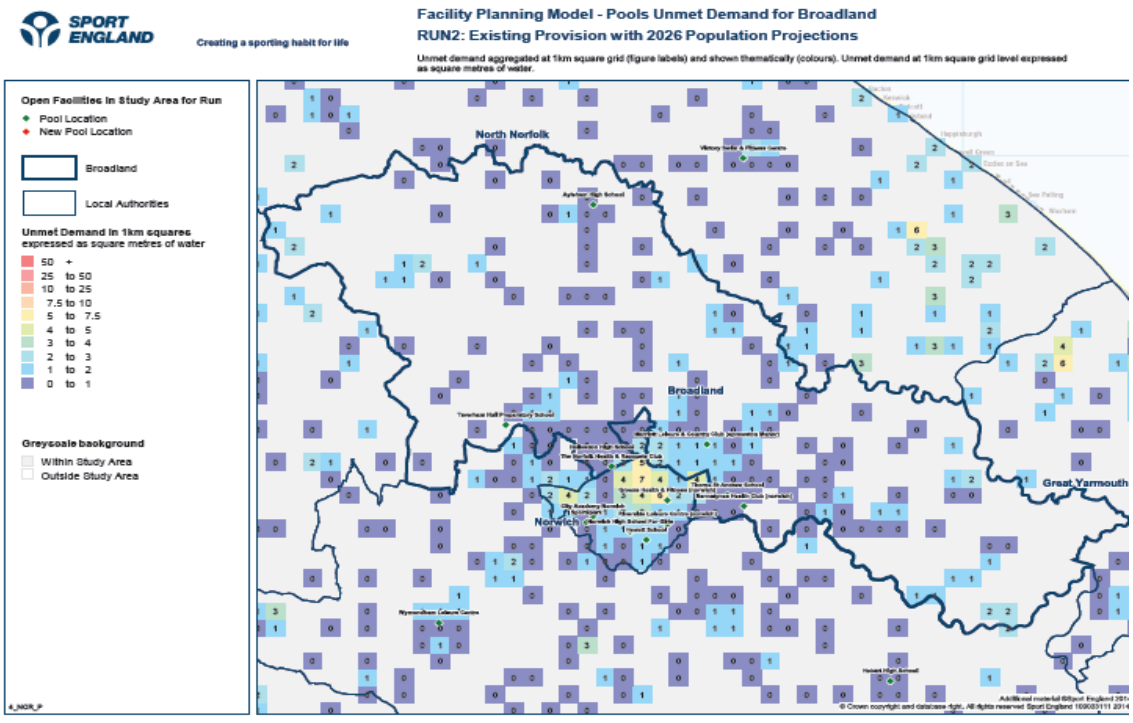
213. This is little changed from 2014 when unmet demand outside catchment was 96.3% of total unmet demand and equated to 291 sq metres of water and so an increase in 11 sq metres of water in unmet dmned outside catchment between 2014 – 2026.

214. Given the small scale of change then only the maps of unmet demand are set out overleaf but there is no commentary because the findings and which are unchanged are reported on in the run 1 findings. The most frequent highest value squares of unmet demand are the squares shaded indigo and light blue. These squares contain unmet demand of between 0 – 1 sq metres of water and 1 – 2 sq metres of water respectively.

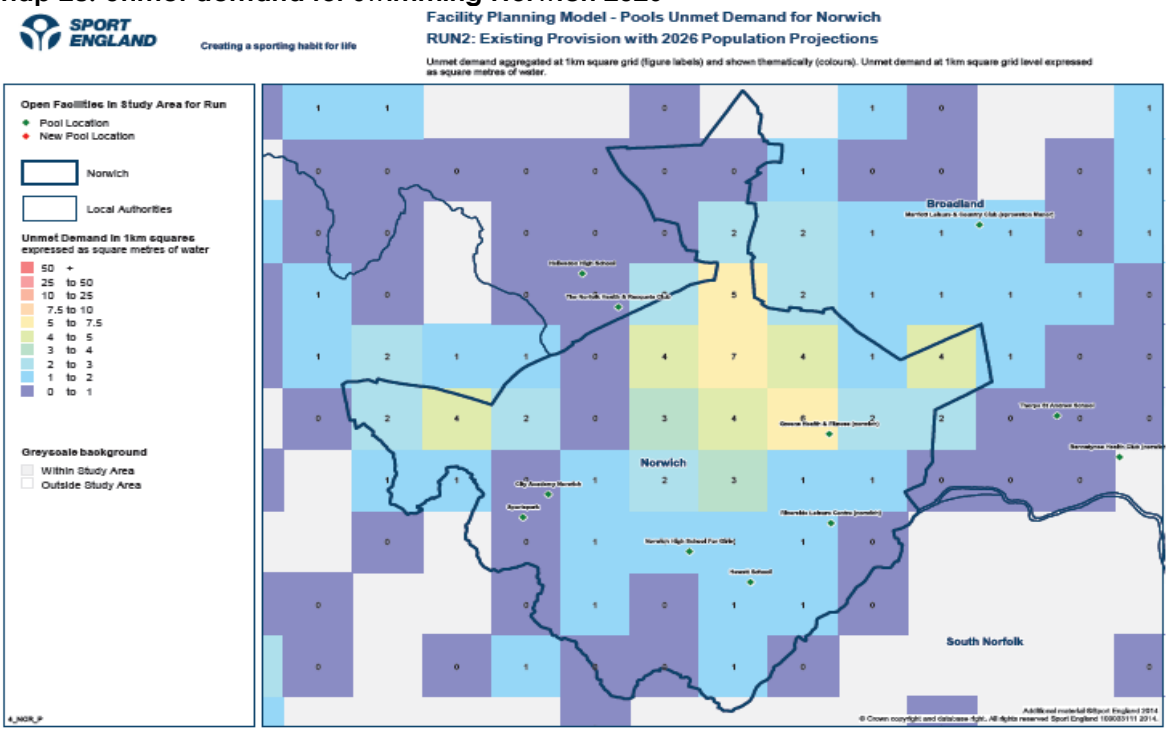
Map 26: Unmet demand for swimming Greater Norwich 2026



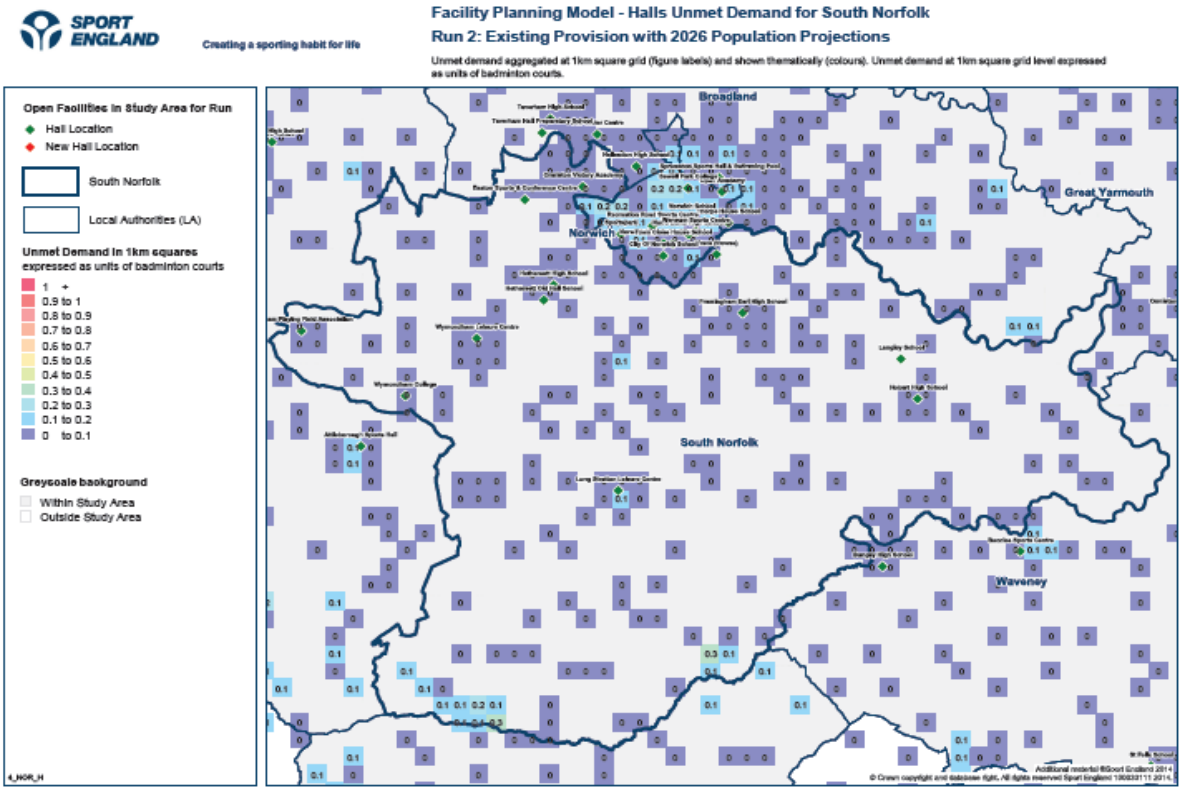
Map 27: Unmet demand for swimming Broadland 2026



Map 28: Unmet demand for swimming Norwich 2026



Map 29: Unmet demand for swimming South Norfolk 2026



215. Under the second definition of unmet demand due to lack of swimming pool capacity this amounts to 5.8% of the total unmet demand for swimming in 2026. This equates to 18.6 sq metres of water across Greater Norwich. In 2026 there is 3,935 sq metres of water available for public use in some or all of the weekly peak period.

216. By any assessment there is not a large amount of unmet demand due to lack of swimming pool capacity.

217. However as reported under run 1 and the most important finding from run 1, is the distribution of demand for swimming. Whilst there are very low levels of unmet demand some of the existing swimming pools are very full at around 10 of the 18 swimming pool sites where the level of demand and usage is estimated to be very high indeed. These findings are reported on under the used capacity heading.

218. The reasons for some pools being more full than others is a combination of factors: differential levels of demand in their catchment area; the different size of pools and therefore bigger pools are able to provide a range swimming activites and draw demand to them because of this offer; comparative ages of pools meaning the quality of the more modern pools also draws demand to them.

219. Maps 26 to 29 above include the unmet demand due to lack of swimming pool capacity. Given total demand is so low it is more important to focus on the findings for the pool sites which have lack of capacity issues than the spatial distribution of unmet demand. This is reviewed under the used capacity heading.

220. So in summary on the findings on unmet demand in run 2 are:

- unmet demand does not increase significantly between 2014 and 2026. Across Greater Norwich it is a total of 321 sq metres of water an increase of only 18 sq metres of water from the 2014 total of 303 sq metres of water. Both figures are based on the comfort level of 70% of pool capacity being used;

- given the very low levels of unmet demand there is no one hot spot/location of concentrated unmet demand;

- some 94% of the total unmet demand in 2026 is under the category of it being located outside the catchment area of a swimming (predominately the walk to catchment area). In 2026 it is estimated that 11% of all visits to pools are by walking. It is a much higher 19% in Norwich because 32% of the population do not have access to a car. However Norwich does have the highest concentration of pools and around 50% of the land area of Norwich is inside the walking catchment area of a pool – so the higher visit rate by walking is mitigated; and

- only 6% of the total unmet demand for swimming pools is under the category of lack of pool capacity and this represents a total of 18 sq metres of water across Greater Norwich. However the biggest issue is the distribution of demand across pools and this is creating very high levels of used capacity at around 10 pool sites across Greater Norwich. It is the issue of the level of pool capacity used which is the much bigger issue than the levels of unmet demand in 2026.

Table 28: Used Capacity

Used Capacity	Greater Norwich	Greater Norwich	Broadland	Broadland	Norwich	Norwich	South Norfolk	South Norfolk
	2014	2026	2014	2026	2014	2026	2014	2026
Total number of visits used of current capacity	23983	26115	5798	6333	12737	13944	5448	5838
% of overall capacity of pools used	70.3	76.6	64.4	70.4	74.9	82	67.3	72.1
% of visits made to pools by walkers	10.4	10.1	7.3	7.7	12.9	12.2	7.6	7.6
% of visits made to pools by road	89.6	89.9	92.7	92.3	87.1	87.8	92.4	92.4
Visits Imported;								
Number of visits imported	2162	2300	1560	1651	5235	5811	1785	1939
As a % of used capacity	9	8.8	26.9	26.1	41.1	41.7	32.8	33.2
Visits Retained:								
Number of Visits retained	21821	23815	4238	4683	7502	8133	3664	3899
As a % of used capacity	91	91.2	73.1	73.9	58.9	58.3	67.2	66.8

221. Used capacity is the measure of usage and throughput at swimming pools and estimates how well used/how full facilities are. To remind - the Sport England facilities planning model is designed to include a 'comfort factor', beyond which, in the case of swimming pools, the pools are too full. The model assumes that usage over 70% of capacity is busy and the pool is operating at an uncomfortable level above that percentage.

222. The total number of visits expressed as used capacity at the 20 pools across Greater Norwich in 2026 is 26,115 visits and this represents 76.6% of the pools total capacity. In run 1 in 2014 it is estimated to be 23,983 visits and this represents 70.3% of the pools total capacity.

223. So across Greater Norwich and by 2026 it is estimated there is a 6.3% increase in the average used capacity of pools across Greater Norwich. Furthermore this increase means the pools are now getting uncomfortable full and are 6% above the pools full comfort level of 70% of pool capacity used.

224. The reason for the increase in pool capacity used is the increase in demand for swimming. Across Greater Norwich this increases from 24,827 visits in 2014 to a total of 26,890 visits in 2026, an increase of 2,063 visits up to 2026.

225. The breakdown of demand and used capacity of pools for each of the three authorities is set out overleaf in Table 29. As the table shows these is quite a lot of variation in the percentage of used capacity of pools in each authority. By 2026 all authorities have an average used capacity of pools which is on or above the pool full comfort level. This varies from 70.4% in

Broadland to 72.1% in South Norfolk to 82% in Norwich. So the Greater Norwich average is masking some differences in each authority and in Norwich in particular the estimate is that across the authority the pools are very full by 2026.

Table 29: Total demand and used capacity of swimming pools for Greater Norwich, Broadland, Norwich and South Norfolk 2014 and 2026

Authority	Total Demand (visits) 2014	Used Capacity (%) 2014	Total Demand (visits) 2026	Used Capacity (%) 2026
Greater Norwich	24,827	70.3%	26,890	76.6%
Broadland	7,817	64.4%	8,322	70.4%
Norwich	9,032	74.9%	9,755	82%
South Norfolk	7,978	67.3%	8,813	72.1%

226. Furthermore, within each authority there are variations from the authority wide average at individual pools and these findings for the used capacity of all pools for 2013 and 2026 is set out in Table 30 overleaf.

227. As the table shows there are 3 individual pool sites in each authority where the estimated used capacity of each pool is above the 70% level (in blue typeface) and most are at or close to 100% of pool capacity used.

228. It is the public pools which have the very high levels of used capacity reflecting they operate on a full public access basis and provide for the full range of swimming programmes: - casual swimming; lane and fitness swimming; schools programmes; learn to swim programmes; swimming clubs and development programmes for swimming.

229. It is the more limited private and commercial pools and some pools on school sites which have a narrower programme of use, in part because of their size restricting the types of activites which can be undertaken and the restricted hours for pubic use. Plus the commercial pools operate on a membership system, so the pools capacity used is lower and this is reflected in the averages for used capacity across each Council.

Table 30: Percentage of swimming pool capacity used for all pools in Greater Norwich Run 1 2014 and Run 2 2026

Name of facility	Type	Area	Year built	Year refurbed	% of Capacity used 2014	% of capacity not used 2014	% of Capacity used 2026	% of capacity not used 2026
Greater Norwich					**70%**	**30%**	**77%**	**23%**
Norwich					75%	25%	82%	18%
CITY ACADEMY NORWICH	Main/General	85	1960		24%	76%	32%	68%
GREENS HEALTH & FITNESS (NORWICH)	Main/General	250	2001		47%	53%	64%	36%
HEWETT SCHOOL	Main/General	250	1960	2006	64%	36%	39%	61%
NORWICH HIGH SCHOOL FOR GIRLS	Main/General	250	2000	2006	98%	2%	100%	0%
RIVERSIDE LEISURE CENTRE (NORWICH)	Main/General	338	2003		96%	4%	100%	0%
RIVERSIDE LEISURE CENTRE (NORWICH)	Learner/Teaching/Training	101						
SPORTSPARK	Main/General	850	2000	2008	**73%**	**27%**	**88%**	**12%**
South Norfolk					67%	33%	72%	28%
ARCHBISHOP SANCROFT HIGH SCHOOL	Main/General	188	1980	2007	59%	41%	56%	44%
DISS SWIM & FITNESS CENTRE	Main/General	313	1987	2004	69%	31%	71%	29%
DISS SWIM & FITNESS CENTRE	Learner/Teaching/Training	38						
HOBART HIGH SCHOOL	Main/General	112	1977		**100%**	**0%**	**100%**	**0%**
LONG STRATTON HIGH SCHOOL	Leisure Pool	90	1960	2008	**100%**	**0%**	**100%**	**0%**
WYMONDHAM LEISURE CENTRE	Main/General	338	1999		**63%**	**37%**	**73%**	**27%**
WYMONDHAM LEISURE CENTRE	Learner/Teaching/Training	81						
Broadland					64%	36%	70%	30%
AYLSHAM HIGH SCHOOL	Main/General	92	1960	2010	**100%**	**0%**	**100%**	**0%**
BANNATYNES HEALTH CLUB (NORWICH)	Main/General	160	1999		**56%**	**44%**	**71%**	**29%**

Name of facility	Type	Area	Year built	Year refurbed	% of Capacity used 2014	% of capacity not used 2014	% of Capacity used 2026	% of capacity not used 2026
HELLESDON HIGH SCHOOL	Main/General	136	1964	2009	**100%**	**0%**	**60%**	**40%**
MARRIOTT LEISURE & COUNTRY CLUB (SPROWSTON MANOR)	Leisure Pool	169	1991	2004	62%	38%	68%	32%
TAVERHAM HALL PREPARATORY SCHOOL	Main/General	135			49%	51%	40%	60%
THE NORFOLK HEALTH & RACQUETS CLUB	Main/General	325	2006		56%	44%	73%	27%
THE NORFOLK HEALTH & RACQUETS CLUB	Leisure Pool	6						
THORPE ST ANDREW SCHOOL	Main/General	200	1950		31%	69%	43%	57%

Imported demand for swimming

230. As in run 1 the level of demand for swimming which is imported into Greater Norwich is reported within the used capacity category of findings. This is because for residents outside of Greater Norwich the nearest pool to where they live could be located in Greater Norwich and so the model distributes this demand to the Greater Norwich pools. It then becomes part of the used capacity of the Greater Norwich pools.

231. The level of imported demand into Greater Norwich only changes by 0.2% to 8.8% of the used capacity of the Greater Norwich pools being imported. It is 9% in 2014.

232. The reason for virtually no change is because the swimming pool supply is unchanged between 2014 and 2026. If the pool numbers and locations changed then this would re-distribute demand based on demand going to the nearest pool location.

233. The levels of imported demand in each of the authorities do change very marginally and by less than 1%, resulting from the population changes. In Broadland imported demand is estimated to be 26.1% of total used capacity in 2026, it is 26.9% in 2014.

234. In Norwich imported demand is 41.7% of pool used capacity in 2026 and 41.1% in 2014. In South Norfolk imported demand is 33.2% of used pool capacity in 2026 and 32.8% in 2014.

235. Given the very small scale of changes in imported demand between 2014 – 2026 then the very extensive text and maps set out for run 1 are not reported here for run 2. There is a summary Table 31 overleaf which sets out the imported demand for all authorities over both years with some key headline comments below that. (Note: if required the maps for run 2 for imported demand can be made available).

Table 31: Imported demand for each authority in visits and percentage terms for 2024 and 2026

Name of authority	Imported demand and which is part of the used capacity of pools in each authority (visits and percentage of total used capacity of the pools) 2014	Imported demand and which is part of the used capacity of pools in each authority (visits and percentage of total used capacity of the pools) 2026
Greater Norwich	2,162 (9%)	2,300 (8.8%)
Broadland	1,560(26.9%)	1,651 (26.1%)
Norwich	5,235 (41.1%)	5,811 (41.7%)
South Norfolk	1,785 (32.8%)	1,939 (33.2%)

236. The key findings relating to Table 31 above are:

- imported demand into each authority changes very little and by less than 1% in all authorities between 2014 and 2026;
- there are very high levels of imported demand in both Norwich and South Norfolk at 41% and 33% of the total used capacity of the pools respectively in both years. However virtually all of this imported demand is an internal transfer between the authorities in the case of Norwich;
- Norwich is importing a combined 5,621 visits and 96% of the total imported demand from Broadland (2,513 visits and 44.7%) and South Norfolk (3,108 visits and 55.2%) in 2026 and so it is very much an internal transfer; and
- South Norfolk's imported demand is from outside of the Greater Norwich authorities and the question is if this is an issue for South Norfolk? It represents an estimated one in three visits to South Norfolk pools is imported. Of the total 1,939 visits to South Norfolk pools in 2026 some 896 visits (46.2%) of the imported demand is from Breckland and 875 visits (45.1%) is from Mid Suffolk. There are only 14 visits coming from Broadland and 49 visits coming from Norwich into South Norfolk.

237. The final part of the used capacity assessment is to bring together the combined figures for retained exported and imported demand for swimming in Greater Norwich and for each authority. This is presented in Table 32 overleaf and expressed as visits in the normal weekly peak period.

238. As Table 32 shows only Broadland is a net exporter and all three other areas are net importers. This is another illustration of the scale and impact of the pool provision in Norwich and its pull across the other two areas, this time in terms of the level of imported demand created by where demand is located and the nearest pool for a lot of residents in both Broadland and

South Norfolk is located in Norwich. The imported demand figures illustrate the scale of this loactional pull.

Table 32: Number of visits for retained, exported and imported demand across Greater Norwich and for each authority 2014 and 2026

Name of authority	Retained visits 2014	Retained Visits 2026	Exported Visits 2014	Exported Visits 2026	Imported Visits 2014	Imported Visits 2026	Net Import/Export 2014	Net Import/Export 2026
Greater Norwich	21,821	23,815	1,165	1,127	2,162	2,300	Net import of 997 visits	Net import of 1,173 visits
Broadland	4,238	4,683	2,919	3,011	1,560	1,651	Net export of 1,359 visits	Net export of 1,360 visits
Norwich	7,502	8,133	987	995	5,235	5,811	Net import of 4,248 visits	Net import of 4,816 visits
South Norfolk	3,644	3,899	3,677	4,221	1,785	1,939	Net import of 1,892 visits	Net import of 2,282 visits

Table 33: Relative Share

Relative Share	Greater Norwich 2014	Greater Norwich 2026	Broadland 2014	Broadland 2026	Norwich 2014	Norwich 2026	South Norfolk 2014	South Norfolk 2026
Score - with 100 = FPM Total (England and also including adjoining LAs in Scotland and Wales)	99	101	100	106	98	101	99	96
+/- from FPM Total (England and also including adjoining LAs in Scotland and Wales)	-1	1	0	6	-2	1	-1	-4

239. To reiterate, in addition to the supply and demand assessment above, the Sport England facility planning model also analyses the relative share of swimming pools – i.e. it takes into account the location of the population with the size and availability of facilities. It then assesses whether residents in one area have a greater or lesser share of provision than other areas, when compared against a national average (100).

240. A simple analogy is to consider swimming pool provision as a cake, its size being proportional to the facility's catchment and its slices divided among the users within the catchment.

241. The changes form the run 1 2014 assessment to 2026 are very small, excepting in South Norfolk. Greater Norwich moves to a value of +1% relative share of access top pool sin 2026 from -1% in 2014.

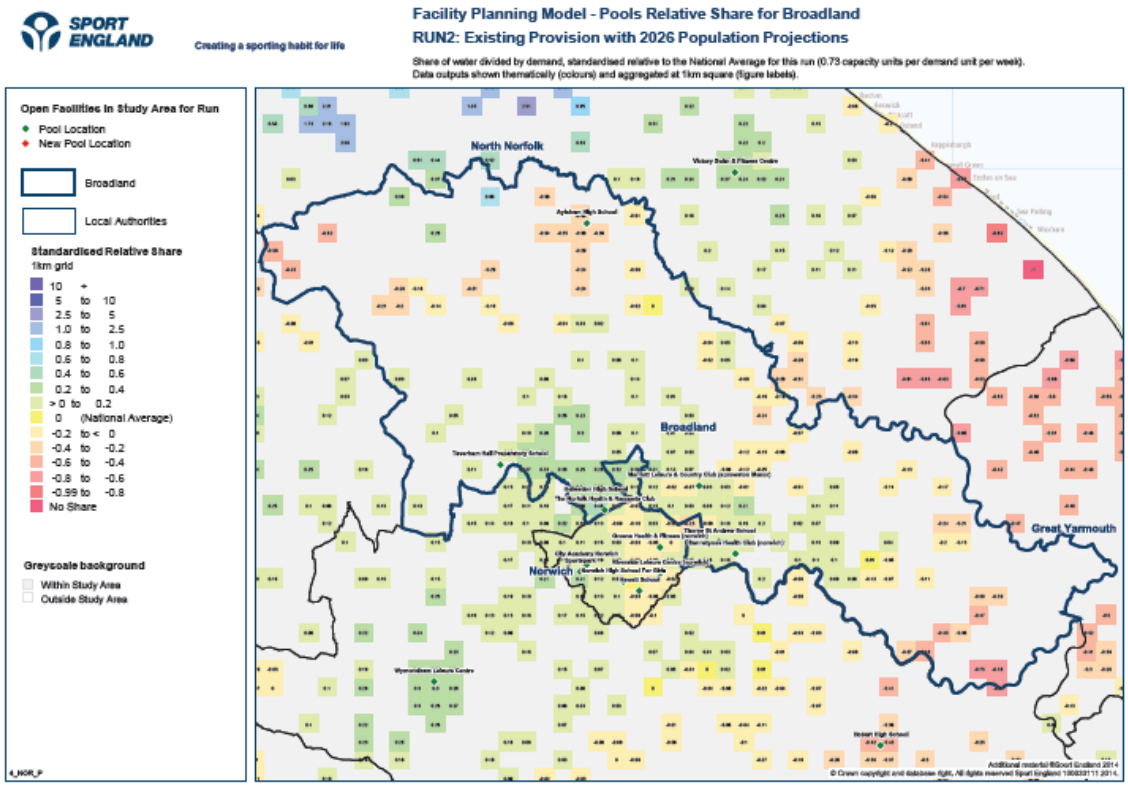
242. In 2014 Broadland had the same value as England and by 2026 it is +6% higher than the England wide value. Whilst Norwich in 2026 has a relative share of +1% of access to pools when compared to the England wide average from -2% in 2014.

243. Finally in South Norfolk its relative share of access to pools in 2026 is -4% lower than the England wide average in 2026 and it was -1% in 2014.

244. Looking at relative share within each authority there is very limited variation to the findings across each authority to those set out for run 1.

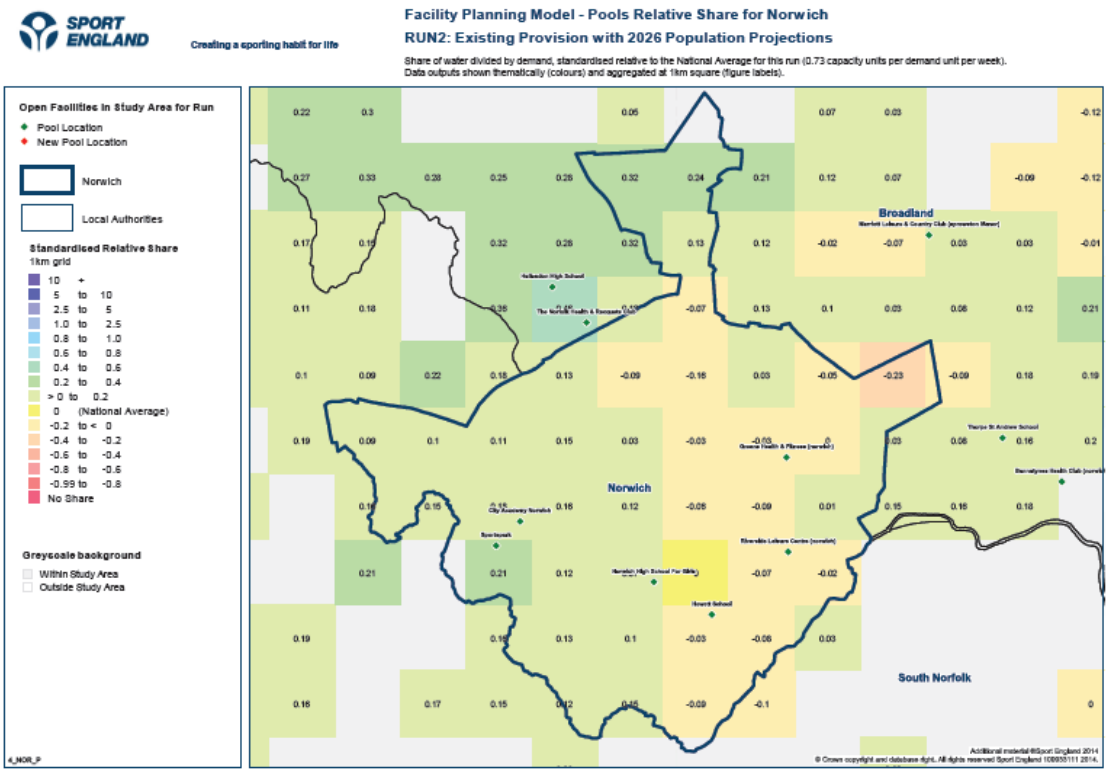
245. For some areas of Broadland there are values, shaded green and with a value of 0% - 20% above the England wide average and there are some areas with a negative value and below the England wide average. The areas shaded cream and pink have a value of between 20% - 40% above the England wide average. So the authority wide average does have variation across the authority. Not surprisingly it is the outer rural areas which have the lowest relative share of access to pool and the areas in the urban area where the pools are located where the population has the higher share of access to pools.

Map 30: Relative Share for access to swimming pools for Broadland in 2026



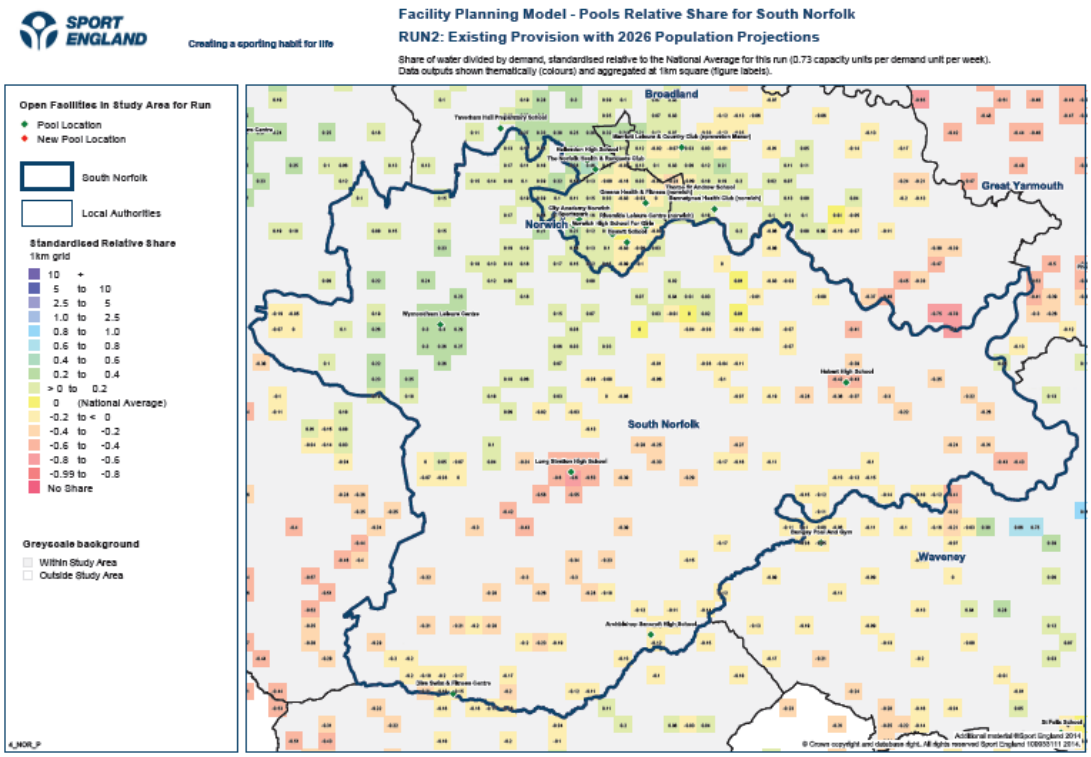
246. For both Norwich and South Norfolk there are similar negative and positive values below and above the authority wide average. Norwich divides quite evenly with the west side of the authority having the above the England wide average of relative share of access to pools and the eastern side having the lower than national average of relative share.

Map 31: Relative Share for access to swimming pools for Greater Norwich in 2026



247. For South Norfolk it is a similar spatial pattern as for Broadland with the outer rural areas having the lowest relative share of access to swimming pools and the more urban areas around Norwich itself where residents have a higher relative share of access to pools. The exception to this is Diss. (Note: it is noted that the ACTUAL values in each grid square are not possible to read in the A4 size of the report. A full set of the maps is provided to each authority to be able to enlarge).

Map 32: Relative Share for access to swimming pools for South Norfolk in 2026



248. This ends the reporting of the main findings on the provision for swimming pools across Greater Norwich in 2026 run 2. The summary of main findings is set out next. These overall findings form run1 and 2 main reports and summaries are taken forward into the Greater Norwich strategy and action plans for each individual authority.

Summary of Main Findings on the supply, demand and access to swimming pools in 2026 (Run 2)

Introduction

249. Run 2 is the strategic assessment of what the future supply and demand for swimming pools could be in Greater Norwich and across the wider study area based on the projected changes in demand for swimming by the population growth between 2014 and 2026 and the aging of the core resident

250. The findings reported in run 2 follow the same sequence as for run 1 - total supply, accessibility to swimming pools, total demand, satisfied demand, unmet demand and used capacity. The full report sets out the maps, charts and tables to support the evidence base findings.

Overall summary

251. Overall the biggest finding is that between 2014 and 2026 the change in the demand for swimming pools is small scale. However the total demand for swimming does exceed the supply of swimming pools which are available for public use at peak times. The biggest issues to address are: scale and areas of new provision; the size of existing swimming pools on school sites; how full some pools are; improving the quality of pools, especially those on school sites; and maintaining access to the community use of school based swimming pools.

252. The projected increase in population and aging of the core resident population between 2014 – 2026 is creating a low level of increase in the demand for swimming, both at Greater Norwich level and in each of the three authorities.

253. The total population increase across Greater Norwich between 2014 – 2026 is 9.9% and this is creating, along with the aging of the existing core resident population, an increase in total demand for swimming of 8.3% between the two years.

254. There are similar percentage increases in population and total demand for swimming for each of the 3 authorities. In Broadland the increase in total demand is 6.4%, in Norwich it is 8% and in South Norfolk the population increase is a little higher at 12.3% and so is the increase in total demand at 10.4%.

255. The total demand for swimming across Greater Norwich in 2026 equates to 4,432 sq metres of water. This is small increase of 340 sq metres of water over the 2014 figure. The total supply in waterspace in 2026 is 3,935 sq metres of water, assumed to be unchanged from 2014. So demand exceeds supply by 497 sq metres of water. (Note: for context a 25metre x 4 lane pool is 212 sq metres of water).

256. This does not mean there is a requirement for around 2 new pools of 25 metres x 4 lanes because the capacity of some of the existing pools to absorb more demand has to be

assessed. As well as where demand is located and how demand is distributed across pools. In effect can more use be made of the existing supply before considering the need for new provision of pools.

257. Swimming pool total supply and pool locations are assumed to be unchanged over 2014 – 2026, the pools are however 12 years older and so pool quality is more of an issue. The catchment area of pools does not change. Travel to pools is still dominated by car travel at 82% of all visits. This means the very extensive swimming pool supply in Norwich at Sportspark and Riverside is accessible by car travel to a large part of South Norfolk and to a lesser extent the Broadland population/demand.

258. This is helpful because in these two authorities these is much closer balance between supply and demand for swimming pools, whereas in Norwich the total supply of pools exceeds the Norwich demand. So for residents of Broadland and South Norfolk inside the drive time catchment of the 2 major pay and swim facilities in Norwich it provides accessible pools. It does however push up the estimated used capacity of the Norwich pools.

259. Used capacity is the single biggest finding from the 2026 assessment, as it is in 2014. The projected increases in demand with no changes in swimming pools supply and locations means that the same pools which were are full in 2014 are even fuller by 2026.

260. The used capacity at the 22 pools across Greater Norwich in 2026 represents 76.6% of the pools total capacity in the weekly peak period. In 2014 it is estimated to be 70.3% of the pools total capacity.

261. So by 2026 across Greater Norwich it is estimated there is a 6.3% increase in the average used capacity of pools. Furthermore this increase means the pools are now getting uncomfortable full and are 6% above the Sport England "pools full" comfort level of 70% of pool capacity used.

262. This varies within each authority, from 70.4% in Broadland to 72.1% in South Norfolk to 82% in Norwich. So the average is masking some differences in each authority and in Norwich in particular the estimate is that across the authority the pools are very full by 2026. In large part this is because of the draw of the Sportspark and Riverside pools. (Note: the Greater Norwich average does not correspond to the percentage for each authority because each authority is also importing and exporting demand to the authorities it borders. The individual authority percentages are the most important).

263. Within the authority wide averages there are some variations at individual pool sites. It is the public pools which have very the highest levels of used capacity reflecting they operate on a full public access basis and provide for some or all of the full range of swimming programmes: casual swimming; lane and fitness swimming; schools programmes; learn to swim programmes; swimming development programmes. Also some of the school pools which whilst not providing the full range of swimming programmes can be in locations where there is high demand for club use and so they also have high levels of used capacity.

264. It is the private and commercial pools which operate on a membership system where the pool capacity used is lower because they provide for members only and have much more limited activites – casual swimming and possibly some learn to swim programmes.

265. The pools estimated to be most full are in Norwich: Riverside with 96% of pool capacity used in the weekly peak period; Norwich School for Girls with 98% of pool capacity used; and Sportspark with 93% of pool capacity used. In South Norfolk it is: Diss swimming pool with 69% of pool capacity used and Wymondham Leisure Centre with 63% of pool capacity used.

266. In Broadland it is Aylsham High School and Hellesdon High School at 100% of pool capacity used.

267. So whilst overall across Greater Norwich there is an average of pool capacity used which means the pools are just above comfortably full, there it is the distribution of the demand which is creating an imbalance with very high estimated used capacity at 8 of the pool sites.

268. The preferred route to addressing this problem of demand distribution is by a managed programme of intervention where all the range of swimming activites and types of use between pay and recreational swimming and club based swimming is identified and managed across the sites.

269. The challenges in achieving this intervention are that;

- the pool sites are located across three local authorities;
- there is a wide range of providers. With local authority providers in Norwich and South Norfolk but not in Broadland;
- the Sportspark venue operating as effectively a Greater Norwich venue/catchment. Norwich having much more capacity than there is demand by Norwich residents but the Sportspark and Riverside venues are effectively full because of the location of demand in South Norfolk and to a lesser extent Broadland making these two venues an accessible location for many residents in these two authorities;
- the schools are independent and determine their approach to community use in terms of if they provide for community use and how much. The schools community use of the pools is a combination of club based swimming and learn to swim programmes; and
- the size of the school pools with the exception of Hewitt School and Norwich High School for Girls (both 250 sq metres of water) are around 140 – 160 sq metres of water a 20m x 3 or 4 lane pool. The size of the pool plus limited changing areas and most importantly the inappropriate role of schools to provide for full public access pay and swim programmes make them inappropriate venues for wider based community use.

270. The issue to resolve is in trying to distribute and manage demand across all the pool venues, so as to achieve a balanced programme of use and activity. Then set this issue in the context of the challenge posed by the collective bullet points, which shows an individual and different set of reasons for operation and management of largely individual pool sites.

271. The next sections set out in a bit more detail the findings behind the overall summary.

Swimming pool demand

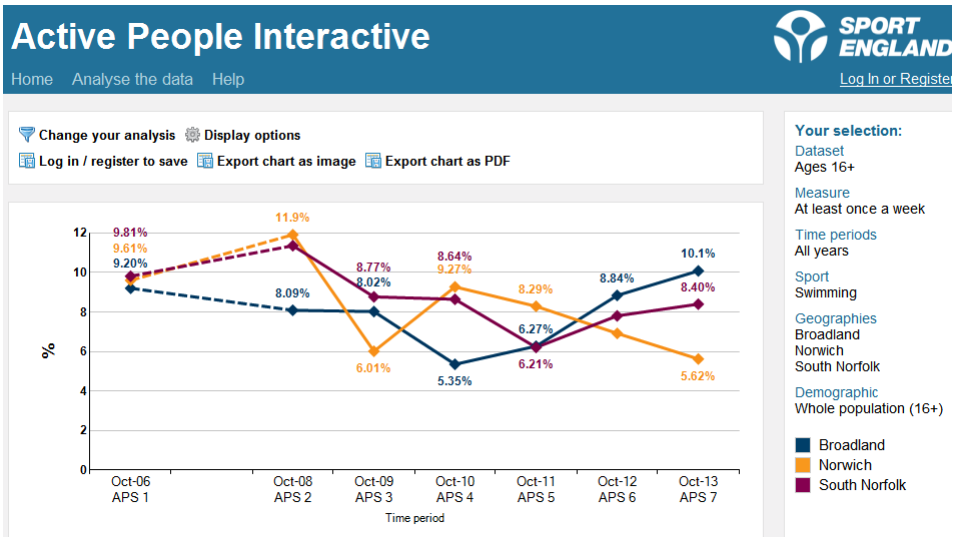
272. Changes in total demand for swimming will be the key driver of the changes in provision for swimming across Greater Norwich by 2026. The changes in total demand are driven by three factors.

- The first is changes in the total population between 2014 – 2026. In 2026 the total population across Greater Norwich is estimated to be 431,920 people. This is an increase of 38,994 people, or, a 9.9% increase over the total Greater Norwich population of 392,926 people in 2014.

- The second factor is the aging of the core resident population between 2014 - 2026. The age structure of the population and the participation rate and frequency of swimming by the resident population will change between 2014 – 2026. It could be the 12 year aging of the resident population means that in 2026 there are less people in the most popular age ranges for swimming and who swim less frequently, (or vice versa). So any increase in total population and the rate and frequency of their swimming participation could be offset by a reduced total demand for swimming by the aging of the core resident population. The total demand assessment does integrate the population growth and the aging of the core resident population.

- The third factor is changes in the rate of swimming participation, either increasing or decreasing. This cannot be determined but the review of tracking adult swimming participation for each authority over the 2005 – 2013 period in Chart 1 shows there has been a 1% increase in Broadland a 4% decline in Norwich and just over 1% decline in South Norfolk by 2013.

Chart 1: Rate of adult swimming participation in each authority 2005 - 2013



273. The findings on population change and the impact on demand between 2014 – 2026 is summarised in the two tables below.

Table 34: Population totals for Greater Norwich and for each authority 2014 - 2026

Authority	Total Population 2014	Total Population 2026	Total Increase in Population 2014 - 2026	% Increase in Total Population 2014 - 2026
Greater Norwich	392,926	431,920	38,994	9.9%
Broadland	126,974	138,031	11,057	8.7%
Norwich	137,675	149,729	12,054	8.7%
South Norfolk	128,277	144,160	15,883	12.3%

Table 35: Changes in total demand for swimming for Greater Norwich and for each authority 2043 - 2026

Authority	Total Demand 2014	Total Demand 2026	Increase in Total Demand 2014 - 2026	% Increase in Total Demand 2014 - 2026
Greater Norwich	24,827	26,890	2,063	8.3%
Broadland	7,817	8,322	505	6.4%
Norwich	9,032	9,755	723	8%
South Norfolk	7,978	8,813	835	10.4%

274. The key findings from both tables are:

- for each area the total percentage increase in population is quite high but spread over the 12 years it is less than 1% a year except in South Norfolk where it is just over 1% a year;
- the total population increase for Greater Norwich between 2014 – 2026 is 9.9% and this is creating, along with the aging of the existing core resident population, an increase in total demand for swimming of 8.3% between the two years; and

- there are similar percentage increase in population and total demand for swimming for each of the 3 authorities. In South Norfolk the population increase is a little higher at 12.3% and so is the increase in total demand at 10.4%.

275. Relating these population and total demand increases to the scale of requirements s for swimming pools shows the increases are not significant.

276. The annual throughput of a 25m x 4 lane swimming pool based on Sport England data is 98,000 visits (not people). Based on the projected population growth total of 38,994 across Greater Norwich, then a broad assessment would be that all of this population would have to go swimming 2.5 times a week to reach the annual throughput figure for a 25m x 4 lane pool. This is a wrong assessment to make but it does indicate the scale of difference between the projected population increase and the annual throughput for this size of swimming pool.

277. In terms of the increase in demand the projected increase, again based on population growth and aging of the core resident population is only 2,063 visits in the weekly peak period across Greater Norwich, despite the population increase of nearly 39,000 visits. This is an illustration of how the aging of the core resident population can be offsetting increases in demand for swimming for population growth.

278. Overall the key finding is that the projected increase in population and aging of the core resident population between 2014 – 2026 is creating very low levels of increases in the demand for swimming, both at Greater Norwich level and in each of the three authorities.

How full are the swimming pools?

279. This was the biggest issue to emerge in 2014 and the increase in demand for swimming is creating even higher levels of used capacity of swimming pools.

280. The used capacity at the 20 pools across Greater Norwich in 2026 represents 76.6% of the pools total capacity. In run 1 in 2014 it is estimated to be 70.3% of the pools total capacity.

281. So across Greater Norwich by 2026 it is estimated there is a 6.3% increase in the average used capacity of pools. Furthermore this increase means the pools are now getting uncomfortable full and are 6% above the pools full comfort level of 70% of pool capacity used.

282. The reason for the increase in pool capacity used is the increase in demand which although not large in population growth or demand increases is impacting on making the pools more full.

283. The breakdown of demand and used capacity of pools for each of the authorities is set out overleaf in Table 36. This does vary however by 2026 all authorities have an average used capacity of pools which is on or above the 70% pool full comfort level.

284. This varies from 70.4% in Broadland to 72.1% in South Norfolk to 82% in Norwich. So the Greater Norwich average is masking some differences in each authority and in Norwich in particular the estimate is that across the authority the pools are very full by 2026.

Table 36: Total demand and used capacity of swimming pools for Greater Norwich, Broadland, Norwich and South Norfolk 2014 and 2026

Authority	Total Demand (visits) 2014	Used Capacity (%) 2014	Total Demand (visits) 2026	Used Capacity (%) 2026
Greater Norwich	24,827	70.3%	26,890	76.6%
Broadland	7,817	64.4%	8,322	70.4%
Norwich	9,032	74.9%	9,755	82%
South Norfolk	7,978	67.3%	8,813	72.1%

285. Furthermore and as in 2014 within each authority there are variations from the authority wide average at individual pools and these findings for the used capacity of all pools for 2013 and 2026 is set out in Table 37 below.

286. As the table shows there are 3 individual pool sites in each authority where the estimated used capacity of each pool is above the 70% level (in blue typeface) and most are at or close to 100% of pool capacity used.

Table 37: Percentage of swimming pool capacity used for all pools in Greater Norwich Run 1 2014 and Run 2 in 2026

Name of facility	Type	Area	Year built	Year refurbed	% of Capacity used 2014	% of capacity not used 2014	% of Capacity used 2026	% of capacity not used 2026
Greater Norwich					70%	30%	77%	23%
Norwich					75%	25%	82%	18%
CITY ACADEMY NORWICH	Main/General	85	1960		24%	76%	32%	68%
GREENS HEALTH & FITNESS (NORWICH)	Main/General	250	2001		47%	53%	64%	36%
HEWETT SCHOOL	Main/General	250	1960	2006	64%	36%	39%	61%
NORWICH HIGH SCHOOL FOR GIRLS	Main/General	250	2000	2006	98%	2%	100%	0%
RIVERSIDE LEISURE CENTRE (NORWICH)	Main/General	338	2003		96%	4%	100%	0%
RIVERSIDE LEISURE CENTRE (NORWICH)	Learner/Teaching/Training	101						
SPORTSPARK	Main/General	850	2000	2008	73%	27%	88%	12%

Name of facility	Type	Area	Year built	Year refurbed	% of Capacity used 2014	% of capacity not used 2014	% of Capacity used 2026	% of capacity not used 2026
South Norfolk					67%	33%	72%	28%
ARCHBISHOP SANCROFT HIGH SCHOOL	Main/General	188	1980	2007	59%	41%	56%	44%
DISS SWIM & FITNESS CENTRE	Main/General	313	1987	2004	69%	31%	71%	29%
DISS SWIM & FITNESS CENTRE	Learner/Teaching/Training	38						
HOBART HIGH SCHOOL	Main/General	112	1977		100%	0%	100%	0%
LONG STRATTON HIGH SCHOOL	Leisure Pool	90	1960	2008	100%	0%	100%	0%
WYMONDHAM LEISURE CENTRE	Main/General	338	1999		63%	37%	73%	27%
WYMONDHAM LEISURE CENTRE	Learner/Teaching/Training	81						
Broadland					64%	36%	70%	30%
AYLSHAM HIGH SCHOOL	Main/General	92	1960	2010	100%	0%	100%	0%
BANNATYNES HEALTH CLUB (NORWICH)	Main/General	160	1999		56%	44%	71%	29%
HELLESDON HIGH SCHOOL	Main/General	136	1964	2009	100%	0%	60%	40%
MARRIOTT LEISURE & COUNTRY CLUB (SPROWSTON MANOR)	Leisure Pool	169	1991	2004	62%	38%	68%	32%
TAVERHAM HALL PREPARATORY SCHOOL	Main/General	135			49%	51%	40%	60%
THE NORFOLK HEALTH & RACQUETS CLUB	Main/General	325	2006		56%	44%	73%	27%
THE NORFOLK HEALTH & RACQUETS CLUB	Leisure Pool	6						
THORPE ST ANDREW SCHOOL	Main/General	200	1950		31%	69%	43%	57%

Appendix 1: Swimming pool supply Greater Norwich and surrounding authorities

Name of facility	Type	AREA	SITE YEAR BUILT	SITE YEAR REFURB
NORWICH				
CITY ACADEMY NORWICH	Main/General	85	1960	
GREENS HEALTH & FITNESS (NORWICH)	Main/General	250	2001	
HEWETT SCHOOL	Main/General	250	1960	2006
NORWICH HIGH SCHOOL FOR GIRLS	Main/General	250	2000	2006
RIVERSIDE LEISURE CENTRE (NORWICH)	Main/General	338	2003	
RIVERSIDE LEISURE CENTRE (NORWICH)	Learner/Teaching/Training	101		
SPORTSPARK	Main/General	850	2000	2008
SOUTH NORFOLK				
ARCHBISHOP SANCROFT HIGH SCHOOL	Main/General	188	1980	2007
DISS SWIM & FITNESS CENTRE	Main/General	313	1987	2004
DISS SWIM & FITNESS CENTRE	Learner/Teaching/Training	38		
HOBART HIGH SCHOOL	Main/General	112	1977	
LONG STRATTON HIGH SCHOOL	Leisure Pool	90	1960	2008
WYMONDHAM LEISURE CENTRE	Main/General	338	1999	
WYMONDHAM LEISURE CENTRE	Learner/Teaching/Training	81		
BROADLAND				
AYLSHAM HIGH SCHOOL	Main/General	92	1960	2010
BANNATYNES HEALTH CLUB (NORWICH)	Main/General	160	1999	
HELLESDON HIGH SCHOOL	Main/General	136	1964	2009
MARRIOTT LEISURE & COUNTRY CLUB (SPROWSTON MANOR)	Leisure Pool	169	1991	2004
TAVERHAM HALL PREPARATORY SCHOOL	Main/General	135		
THE NORFOLK HEALTH & RACQUETS CLUB	Main/General	325	2006	
THE NORFOLK HEALTH & RACQUETS CLUB	Leisure Pool	6		
THORPE ST ANDREW SCHOOL	Main/General	200	1950	
BRECKLAND				
BRECKLAND LEISURE CENTRE AND WATERWORLD	Main/General	313	1974	2003
BRECKLAND LEISURE CENTRE AND WATERWORLD	Leisure Pool	275		
BRECKLAND LEISURE CENTRE AND WATERWORLD	Learner/Teaching/Training	75		
DEREHAM LEISURE CENTRE	Main/General	338	2007	
DEREHAM LEISURE CENTRE	Learner/Teaching/Training	135		
NORTH NORFOLK				
CROMER HIGH SCHOOL	Main/General	160	1979	2001
FITNESS EXPRESS AT KELLING HEATH	Main/General	190	2000	
GRESHAMS HIGH SCHOOL	Main/General	250	1970	1999
PINEWOOD LEISURE CLUB	Main/General	250	1992	2007
PINEWOOD LEISURE CLUB	Learner/Teaching/Training	30		
SPLASH LEISURE AND FITNESS CENTRE	Main/General	350	1988	2004
SPLASH LEISURE AND FITNESS CENTRE	Learner/Teaching/Training	6		
VICTORY SWIM & FITNESS CENTRE	Main/General	325	2003	
GREATYARMOUTH				
GREAT YARMOUTH HIGH SCHOOL	Main/General	264	1985	2005

Name of facility	Type	AREA	SITE YEAR BUILT	SITE YEAR REFURB
GREAT YARMOUTH MARINA LEISURE CENTRE	Main/General	313	1981	2004
GREAT YARMOUTH MARINA LEISURE CENTRE	Learner/Teaching/Training	25		
PHOENIX POOL	Main/General	250	1974	2004
MID SUFFOLK				
MID SUFFOLK LEISURE CENTRE	Main/General	325	1986	
MID SUFFOLK LEISURE CENTRE	Main/General	96		
MID SUFFOLK LEISURE CENTRE	Learner/Teaching/Training	36		
STRADBROKE SWIM AND FITNESS CENTRE	Main/General	160	1991	2002
WAVENEY				
BANNATYNES HEALTH CLUB (LOWESTOFT)	Main/General	120	2002	
BUNGAY POOL AND GYM	Main/General	263	1990	
GUNTON HALL RESORT	Main/General	220	1995	
NIRVANA FITNESS LTD	Main/General	199	2006	
ST FELIX SCHOOL	Main/General	250	1998	
WATERLANE LEISURE CENTRE	Main/General	313	1976	2012
WATERLANE LEISURE CENTRE	Learner/Teaching/Training	88		

Appendix 2 – Model description, Inclusion Criteria and Model Parameters

Included within this appendix are the following:

A. Model description
B. Facility Inclusion Criteria
C. Model Parameters

A. Model Description

Background

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. The model is a tool to help to assess the strategic provision of community sports facilities in an area. It is currently applicable for use in assessing the provision of sports halls, swimming pools, indoor bowls centres and artificial grass pitches.

Use of FPM

Sport England uses the FPM as one of its principal tools in helping to assess the strategic need for certain community sports facilities. The FPM has been developed as a means of:

- assessing requirements for different types of community sports facilities on a local, regional or national scale;
- helping local authorities to determine an adequate level of sports facility provision to meet their local needs;
- helping to identify strategic gaps in the provision of sports facilities; and
- comparing alternative options for planned provision, taking account of changes in demand and supply. This includes testing the impact of opening, relocating and closing facilities, and the likely impact of population changes on the needs for sports facilities.

Its current use is limited to those sports facility types for which Sport England holds substantial demand data, i.e. swimming pools, sports halls, indoor bowls and artificial grass pitches.

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. For example, the FPM was used to help assess the impact of a 50m swimming pool development in the London Borough of Hillingdon. The Council invested £22 million in the sports and leisure complex around this pool and received funding of £2,025,000 from the London Development Agency and £1,500,000 from Sport England[1].

[1] Award made in 2007/08 year.

How the model works

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, taking into account how far people are prepared to travel to such a facility.

In order to do this, the model compares the number of facilities (supply) within an area, against the demand for that facility (demand) that the local population will produce, similar to other social gravity models.

To do this, the FPM works by converting both demand (in terms of people), and supply (facilities), into a single comparable unit. This unit is 'visits per week in the peak period' (VPWPP). Once converted, demand and supply can be compared.

The FPM uses a set of parameters to define how facilities are used and by whom. These parameters are primarily derived from a combination of data including actual user surveys from a range of sites across the country in areas of good supply, together with participation survey data. These surveys provide core information on the profile of users, such as, the age and gender of users, how often they visit, the distance travelled, duration of stay, and on the facilities themselves, such as, programming, peak times of use, and capacity of facilities.

This survey information is combined with other sources of data to provide a set of model parameters for each facility type. The original core user data for halls and pools comes from the National Halls and Pools survey undertaken in 1996. This data formed the basis for the National Benchmarking Service (NBS). For AGPs, the core data used comes from the user survey of AGPs carried out in 2005/6 jointly with sportscotland.

User survey data from the NBS and other appropriate sources are used to update the models parameters on a regular basis. The parameters are set out at the end of the document, and the range of the main source data used by the model includes;

- National Halls & Pools survey data –Sport England
- Benchmarking Service User Survey data –Sport England
- UK 2000 Time Use Survey - ONS
- General Household Survey - ONS
- Scottish Omnibus Surveys – Sport Scotland
- Active People Survey - Sport England
- STP User Survey - Sport England & sportscotland
- Football participation - The FA
- Young People & Sport in England – Sport England
- Hockey Fixture data - Fixtures Live

Calculating Demand

This is calculated by applying the user information from the parameters, as referred to above, to the population[2]. This produces the number of visits for that facility that will be demanded by the population. Depending on the age and gender make up of the population, this will affect the number of visits an area will generate. In order to reflect the different population make up of the country, the FPM calculates demand based on the smallest census groupings. These are Output Areas (OA)[3]. The use of OA's in the calculation of demand ensures that the FPM is able to reflect and portray differences in demand in areas at the most sensitive level based on available census information. Each OA used is given a demand value in VPWPP by the FPM.

Calculating Supply Capacity

A facility's capacity varies depending on its size (i.e. size of pool, hall, pitch number), and how many hours the facility is available for use by the community. The FPM calculates a facility's capacity by applying each of the capacity factors taken from the model parameters, such as the assumptions made as to how many 'visits' can be accommodated by the particular facility at any one time. Each facility is then given a capacity figure in VPWPP. (See parameters in Section C)

Based on travel time information[4] taken from the user survey, the FPM then calculates how much demand would be met by the particular facility having regard to its capacity and how much demand is within the facility's catchment. The FPM includes an important feature of spatial interaction. This feature takes account of the location and capacity of all the facilities, having regard to their location and the size of demand and assesses whether the facilities are in the right place to meet the demand.

It is important to note that the FPM does not simply add up the total demand within an area, and compare that to the total supply within the same area. This approach would not take account of the spatial aspect of supply against demand in a particular area. For example, if an area had a total demand for 5 facilities, and there were currently 6 facilities within the area, it would be too simplistic to conclude that there was an over supply of 1 facility, as this approach would not take account of whether the 5 facilities are in the correct location for local people to use them within that area. It might be that all the facilities were in one part of the borough, 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.

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

[2] For example, it is estimated that 10.45% of 16-24 year old males will demand to use an AGP, 1.69 times a week. This calculation is done separately for the 12 age/gender groupings.
[3] Census Output Areas (OA) are the smallest grouping of census population data, and provides 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 175,400 OA's across England & Wales. An OA has a target value of 125 households (300 people) per OA.
[4] To reflect the fact that as distance to a facility increases, fewer visits are made, the FPM uses a travel time distance decay curve, where the majority of users travel up to 20 minutes. The FPM also takes account of the road network when calculating travel times. Car ownership levels, taken from Census data, are also taken into account when calculating how people will travel to facilities.

Facility Attractiveness – for halls and pools only

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 effects the way visits are distributed between facilities. Attractiveness however, is very subjective. Currently weightings are only used for hall and pool modelling, with a similar approach for AGPs is being developed.

Attractiveness weightings are based on the following:

1. Age/refurbishment weighting – pools & 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.
2. Additionally, the date of any significant refurbishment is also included within the weighting factor; however, the attractiveness is set lower than a new build of the same year. It is assumed that a refurbishment that is older than 20 years will have a minimal impact on the facilities attractiveness. The information on year built/refurbished is taken from Active Places. A graduated curve is used to allocate the attractiveness weighting by year. This curve levels off at around 1920 with a 20% weighting. The refurbishment weighting is slightly lower than the new built year equivalent.

3. Management & ownership weighting – halls only - due to the large number of halls being provided by the education sector, an assumption is made that in general, these halls will not provide as balanced a program than halls run by LAs, trusts, etc, with school halls more likely to be used by teams and groups through block booking. A less balanced programme is assumed to be less attractive to a general, pay & play user, than a standard local authority leisure centre sports hall, with a wider range of activities on offer.

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

   - High weighted curve - includes Non education management - better balanced programme, more attractive.
   - Lower weighted curve - includes Educational owned & managed halls, less attractive.

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

Comfort Factor

As part of the modelling process, each facility is given a maximum number of visits it can accommodate, based on its size, the number of hours it's available for community use and the 'at one time capacity' figure (pools =1 user /6m^2 , halls = 5 users /court). This is gives each facility a "theoretical capacity".

If the facilities were full to their theoretical capacity then there would simply not be the space to undertake the activity comfortably. In addition, there is a need to take account of a range of activities taking place which have different numbers of users, for example, aqua aerobics will have significantly more participants, than lane swimming sessions. Additionally, there may be times and sessions that, whilst being within the peak period, are less busy and so will have fewer users.

To account of these factors the notion of a 'comfort factor' is applied within the model. For swimming pools, 70% and for sports halls 80% of its theoretical capacity is considered as being the limit where the facility starts to become uncomfortably busy. (Currently, the comfort factor is NOT applied to AGPs due to the fact they are predominantly used by teams, which have a set number of players and so the notion of having 'less busy' pitch is not applicable.)

The comfort factor is used in two ways;

1. Utilised Capacity - How well used is a facility? 'Utilised capacity' figures for facilities are often seen as being very low, 50-60%, however, this needs to be put into context with 70-80% comfort factor levels for pools and halls. The closer utilised capacity gets to the comfort factor level, the busier the facilities are becoming. You should not aim to have facilities operating at 100% of their theoretical capacity, as this would mean that every session throughout the peak period would be being used to its maximum capacity. This would be both unrealistic in operational terms and unattractive to users.

2. Adequately meeting Unmet Demand – the comfort factor is also used to increase the amount of facilities that are needed to comfortably meet the unmet demand. If this comfort factor is not added, then any facilities provided will be operating at its maximum theoretical capacity, which is not desirable as a set out above.

Utilised Capacity (used capacity)

Following on from Comfort Factor section, here is more guidance on Utilised Capacity.

Utilised capacity refers to how much of facilities theoretical capacity is being used. This can, at first, appear to be unrealistically low, with area figures being in the 50-60% region. England figure for Feb 2008 Pools was only 57.6%.

Without any further explanation, it would appear that facilities are half empty. The key point is not to see a facilities theoretical maximum capacity (100%) as being an optimum position. This, in practise, would mean that a facility would need to be completely full every hour it was open in the peak period. This would be both unrealistic from an operational perspective and undesirable from a user's perspective, as the facility would completely full.

Facility	Car	Walking	Public transport
Swimming Pool	70.0%	18.8%	11.2%
Sports Hall	74.6%	15.5%	10.0%
AGP Combined Football Hockey	 89.0% 87.1% 95.4%	 9.0% 10.7% 2.6%	 2.0% 2.1% 1.9%

For example:

A 25m, 4 lane pool has Theoretical capacity of 2260 per week, during 52 hour peak period.

	4-5pm	5-6pm	6-7pm	7-8pm	8-9pm	9-10pm	Total Visits for the evening
Theoretical max capacity	44	44	44	44	44	44	264
Actual Usage	8	30	35	50	15	5	143

Usage of a pool will vary throughout the evening, with some sessions being busier than others though programming, such as, an aqua-aerobics session between 7-8pm, lane swimming between 8-9pm. Other sessions will be quieter, such as between 9-10pm. This pattern of use would give a total of 143 swims taking place. However, the pool's maximum capacity is 264 visits throughout the evening. In this instance the pools utilised capacity for the evening would be 54%.

As a guide, 70% utilised capacity is used to indicate that pools are becoming busy, and 80% for sports halls.

Travel times Catchments

The model use travel times to define facility catchments. These travel times have been derived through national survey work, and so are based on actual travel patterns of users. With the exception of London where DoT travel speeds are used for Inner & Outer London Boroughs, these travel times are used across the country and so do not pick up on any regional differences, of example, longer travel times for remoter rural communities.

The model includes three different modes of travel, by car, public transport & walking. Car ownership levels are also taken into account, in areas of low car ownership, the model reduces the number of visits made by car, and increases those made on foot.

Overall, surveys have shown that the majority of visits made to swimming pools, sports halls and AGPs are made by car, with a significant minority of visits to pools and sports halls being made on foot.

The model includes a distance decay function; where the further a user is from a facility, the less likely they will travel. The survey data show the % of visits made within each of the travel

times, which shows that almost 90% of all visits, both car borne or walking, are made within 20 minutes. Hence, 20 minutes can be used as a rule of thumb for catchments for sports halls and pools.

	Sport halls		Swimming Pools	
Minutes	**Car**	**Walk**	**Car**	**Walk**
0-10	57%	55%	58%	56%
10-20	33%	30%	34%	30%
20 -40	9%	12%	7%	11%

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

B. Inclusion Criteria used within analysis

Swimming Pools

The following inclusion criteria were used for this analysis;

- Include all Operational Indoor Pools available for community use i.e. pay and play, membership, Sports Club/Community Association
- Exclude all pools not available for community use i.e. private use
- Exclude all outdoor pools i.e. Lidos
- Exclude all pools where the main pool is less than 20 meters OR is less than 160 square meters.
- Include all 'planned', 'under construction, and 'temporarily closed' facilities where identified.
- Where opening times are missing, availability has been included based on similar facility types.
- Where the year built is missing assume date 1975/5.

Facilities in Wales and the Scottish Borders included, as supplied by sportscotland and Sports Council for Wales. All facilities weighted 75% due to no data on age of facilities.

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

Model Parameters used in the Analysis

At one Time Capacity		0.16667 per square metre = 1 person per 6 square meters
Catchments		Car: 15 minutes Walking: 1.6 km Public transport: 15 minutes at about half the speed of a car NOTE; Catchments use a distance decay function. Times and distances above are indicative.
Duration		64 minutes for tanks 68 minutes for leisure pools
Participation -% of age band Frequency - VPWPP		0-15 16-24 25-39 40-59 60-79 M 13.23 10.86 13.73 8.13 3.93 F 12.72 14.51 18.89 10.44 4.52 M 0.92 0.84 0.71 0.94 1.18 F 0.95 0.76 0.79 0.81 1.07
Peak Period Percentage of demand in Peak Period		Weekday: 12:00 to 13:30, 16:00 to 22.00 Saturday: 09:00 to 16:00 Sunday: 09:00 to 16:30 Total: 52 Hours 63%