Playing Pitch Calculator

The Playing Pitch Calculator (PPC) is a planning tool which can help with estimating the additional demand for playing pitches that may be generated from a new population. It can be used to provide a consistent starting point for estimating this demand which can be refined locally as appropriate. The PPC is hosted on Sport England's Active Places Power website: www.activeplacespower.com. The website includes a detailed description of the PPC along with guidance on using the tool and its results (https://support.activeplacespower.com/pages/playingpitchcalculator).

Criteria

The PPC results presented below are based on the following user entered criteria:

Version name:	HBBC PPS 2024 Stage C data
Area of interest:	Hinckley & Bosworth
New population demand estimated for:	**432**
Current teams/members per sport age group:	User Defined
Current population:	User Defined
Percentage of play in the peak period:	100% Default
Demand adjusted by:	0% Default
Population profile:	User Defined

See Appendix A for details of the criteria used to generate the below results, including detail of any 'user defined' criteria. Appendices B and C provide details on data sources and definitions, while appendix D provides a breakdown of the results.

Results

Date generated: 11/11/2026

The PPC provides an estimate of demand for matches (Part 1) and training activity (Part 2), along with new pitches (Part 3) should they be required to meet the estimated demand. A further breakdown of the results is available in Appendix D.

Part 1: Estimated demand for matches in the weekly peak period (per season for Cricket)

Football		
Adult	0.07	Match equivalent sessions in the weekly peak period
Youth	0.24	Match equivalent sessions in the weekly peak period
Mini	0.18	Match equivalent sessions in the weekly peak period
Rugby Union		
Adult (inc. youth & mini)	0.04	Match equivalent sessions in the weekly peak period
Rugby League		
Adult (inc. youth & mini)	0	Match equivalent sessions in the weekly peak period
Hockey		
Adult	0	Match equivalent sessions in the weekly peak period
Junior & Mixed U10s	0	Match equivalent sessions in the weekly peak period
Cricket		
Open Age & Junior	1.37	Match equivalent sessions per season

Part 2: Estimated demand for training per week (match equivalent sessions or hours)

Football	0.99	Hours on a 3G artificial grass pitch
Rugby Union	0.05	Match equivalent sessions on a floodlit natural grass pitch
Rugby League	0	Match equivalent sessions on a floodlit natural grass pitch
Hockey – Adult	0	Hours on a sand based artificial grass pitch
Hockey – Junior & Mixed U10s	0	Hours on a sand based artificial grass pitch

Note: No estimate for training demand is currently calculated for cricket as the PPC assumes the use of a pitch is not the primary location for cricket training activity e.g. use of cricket nets and the outfield.

Determining the most appropriate way to meet the estimated demand

The Part 1 & 2 results should be looked at alongside an assessment of need for pitches and related plan/strategy for the area (e.g. a playing pitch strategy). By doing so, the most appropriate way of meeting the estimated demand should be determined. The user should:

1. Use the assessment of need and related plan/strategy to understand the nature of the playing pitch sites within an appropriate catchment of the new population.
2. Look at the different ways in which the needs could be met, for example:
   a. enhancing existing provision to increase capacity, with suitable management and maintenance arrangements to ensure the greater capacity over the longer term.
   b. Undertaking works, and ensuring long term maintenance and access arrangements, to secure new or greater community use of existing provision.
   c. Providing new pitches on new sites (natural and/or artificial grass pitches).

Part 3: Estimated demand and costs for new pitches (matches and training demand) and ancillary provision

	Number of Pitches	Capital Cost	Lifecycle cost (per annum)	Changing rooms (number)	Changing rooms (cost)
Total	**0.6**	**£90,888**	**£12,234**	**0.6**	**£131,859**
Natural Grass Pitches	**0.57**	**£57,830**	**£11,262**	**0.55**	**£120,508**
Adult Football	0.07	£8,898	£1,753	0.15	£31,698
Youth Football	0.24	£23,277	£4,702	0.26	£56,120
Mini Soccer	0.18	£5,560	£1,101	0	£0
Rugby Union	0.04	£8,355	£1,546	0.09	£19,306
Rugby League	0	£0	£0	0	£0
Cricket	0.03	£11,741	£2,160	0.06	£13,385
Artificial Grass Pitches	**0.03**	**£33,058**	**£972**	**0.05**	**£11,351**
Sand Based	0	£0	£0	0	£0
3G	0.03	£33,058	£972	0.05	£11,351

Appendix A – Calculator criteria

Version name:	HBBC PPS 2024 Stage C data
Area of interest:	Hinckley & Bosworth
New population demand estimated for:	432
Current total population for the area of interest:	120,065

	Current teams per sport age group (& members for junior hockey)		Current population	Percentage of play in the peak period	Percentage demand adjusted by
Sport age group	User Defined		User Defined	100% Default	0% Default
Football					
Men 11v11 (16-45yrs)	36		19,779	100%	0%
Women 11v11 (16-45yrs)	4		20,879	100%	0%
Boys 11v11 (12-15yrs)	63		2,864	100%	0%
Girls 11v11 (12-15yrs)	7		2,759	100%	0%
Boys 9v9 (10-11yrs)	56		1,465	100%	0%
Girls 9v9 (10-11yrs)	7		1,323	100%	0%
Mixed 7v7 (8-9yrs)	61		2,752	100%	0%
Mixed 5v5 (6-7yrs)	39		2,629	100%	0%
Cricket					
Men (18-55yrs)	22		26,114		0%
Women (18-55yrs)	2		27,482		0%
Boys (7-18yrs)	17		8,416		0%
Girls (7-18yrs)	0		8,056		0%
Rugby Union					
Men (19-45yrs)	7		17,752	100%	0%
Women (19-45yrs)	2		18,939	100%	0%
Boys (13-18yrs)	9		4,133	100%	0%
Girls (13-18yrs)	3		3,950	100%	0%
Mixed (7-12yrs)	13		8,390	100%	0%
Rugby League					
Men (19-45yrs)	0		17,752	100%	0%
Women (19-45yrs)	0		18,939	100%	0%
Boys (12-18yrs)	0		4,890	100%	0%
Girls (12-18yrs)	0		4,699	100%	0%
Mixed (7-11yrs)	0		6,883	100%	0%
Hockey					
Men (17-55yrs)	0		26,803	100%	0%
Women (17-55yrs)	0		28,130	100%	0%
Boys (14-16yrs)	0	0	2,085	100%	0%
Girls (14-16yrs)	0	0	1,957	100%	0%
Boys (11-13yrs)	0	0	2,238	100%	0%
Girls (11-13yrs)	0	0	2,121	100%	0%
Mixed (5-10yrs)	0	0	7,994	100%	0%

Population profile: User Defined

Age Group	Male	Female
0 to 4	5.18%	4.79%
5 to 9	5.71%	5.33%
10 to 15	7.39%	6.64%
16 to 19	4.28%	3.72%
20 to 24	4.21%	3.97%
25 to 29	5.55%	5.71%
30 to 34	6.05%	6.53%
35 to 39	6.34%	6.5%
40 to 44	6.13%	6.26%
45 to 49	5.96%	5.89%
50 to 54	6.97%	6.8%
55 to 59	7.41%	7.2%
60 to 64	6.91%	6.78%
65 to 69	5.89%	5.73%
70 to 74	5.47%	5.64%
75 to 79	5.34%	5.52%
80 to 84	2.99%	3.53%
85 to 89	1.68%	2.19%
90+	0.54%	1.27%
Total	100%	100%

Appendix B – Population and cost data sources

The PPC uses the following data sources:

Population data
Office for National Statistics:
2026 population projections, based on 2021 Census data and modified by 2022-based Subnational Population Projections for Local Authorities. Adapted from data from the Office for National Statistics licensed under the Open Government Licence v.3.0.
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandz1

Greater London Authority:
2026 London Borough projections are modified by Greater London Authority (GLA) 2022-based Demographic Projections – ward populations, identified capacity scenario, © GLA, 2022.
https://data.london.gov.uk/dataset/housing-led-population-projections

Cost data
Capital costs:
Sport England's 3rd quarter 2026 facility cost updates.
https://www.sportengland.org/guidance-and-support/facilities-and-planning/design-and-cost-guidance/facility-cost-guidance

Cost variations:
Building Cost Information Service's (BCIS) (all-in Tender Price Index) pricing adjustment factors.

Lifecycle costs:
Sport England's Life Cycle Costs Documents (2023 Q2) – Natural Turf Pitches
Sport England's Life Cycle Costs Documents (2023 Q2) – Artificial Surfaces
https://www.sportengland.org/guidance-and-support/facilities-and-planning/design-and-cost-guidance/facility-cost-guidance

Appendix C – Definitions

Part 1 & 2 results

Match equivalent sessions

A match equivalent session (MES) is an amount of play equivalent to a match for the pitch type in question. It allows for different types of play using the same pitch type to be quantified and brought together using a comparable unit, based on the impact the play is likely to have on the wear and tear and therefore capacity of the pitch type.

For example, an adult rugby match taking place on an adult rugby pitch will equate to one MES. However, matches for the junior and younger mixed age groups, along with training activity, often also use adult pitches rather than having dedicated junior and mini rugby pitches or training pitches/areas. The Playing Pitch Calculator therefore builds in assumptions as to how much this other use of an adult pitch equates to in terms of an adult MES. This enables the figures for the different types of demand for the use of adult rugby pitches to be brought together and displayed as a single MES figure.

Pitch dimensions

The estimated use of pitches in the Part 1 and 2 results relates to pitches of the recommended dimensions for relevant age group, as set out in Sport England's 'Comparative Sizes of Sports Pitches and Courts (Outdoor)' guidance.
https://www.sportengland.org/guidance-and-support/facilities-and-planning/design-and-cost-guidance/outdoor-surfaces

Part 3 results

The estimated demand and costs for new pitches and changing rooms presented in the Part 3 results are based on the following:

Natural grass pitches

Adult Football: 106 x 70m pitch (7,420sqm)
Junior Football: 97 x 61m under 16/15 pitch (5,917sqm)
Mini Football Pitch: 43 x 33m under 8/7 pitch (1,419sqm)
Senior Rugby Union: 130 x 80m pitch (10,400sqm)
Senior Rugby League: 122 x 74m pitch (9,028sqm)
Cricket - Natural turf 8-pitch square and 2 winter sports pitches: 125.6 x 164.4m (20,649sqm)

Artificial Grass Pitches

Sand-dressed surface - 18mm sand-dressed pitch, fenced with sports lighting: 101.4 x 63m (6,388sqm)
3G surface - 60m pile length pitch, fenced with sports lighting: 106 x 70m (7,420sqm)

Changing rooms

4 team changing room clubhouse plus club room: 245sqm

Appendix D - Results breakdown

Part 1 and 2 results – Matches and training

	Q1. How many people from the new population may fall within the individual sport age groups?		Q2. How many teams may be generated by the new population?		Q3. How many home matches may be demanded by the new population in the relevant weekly peak period (per season for Cricket)?	Q4. How much demand for training per week may be demanded by the new population?		
Sport age groups	Percentage of the population in the area that fall within each sport age group	**A1. Estimated number of people from the new population that fall within each sport age group**	Existing team generation rate	**A2. Estimated number of teams generated by the new population** (with any adjustment in demand applied)	**A3. Estimated number of home matches during the weekly peak period generated by the new population** (per season for Cricket)	Existing junior hockey member generation rate	Estimated number of junior hockey training squads generated by the new population	**A4. Estimated training demand per week generated by the new population** (Football and Hockey = hours, Rugby codes = match equivalent sessions, Cricket = not applicable)
Football								
Men 11v11 (16-45yrs)	16.68%	**72.05**	549	**0.13**	**0.07**			**0.13**
Women 11v11 (16-45yrs)	17.21%	**74.36**	5,220	**0.01**	**0.01**			**0.01**
Boys 11v11 (12-15yrs)	2.45%	**10.57**	45	**0.23**	**0.12**			**0.23**
Girls 11v11 (12-15yrs)	2.27%	**9.81**	394	**0.02**	**0.01**			**0.02**
Boys 9v9 (10-11yrs)	1.2%	**5.18**	26	**0.2**	**0.1**			**0.2**
Girls 9v9 (10-11yrs)	1.09%	**4.73**	189	**0.03**	**0.01**			**0.03**
Mixed 7v7 (8-9yrs)	2.32%	**10.01**	45	**0.22**	**0.11**			**0.22**
Mixed 5v5 (6-7yrs)	2.21%	**9.54**	67	**0.14**	**0.07**			**0.14**
Cricket								
Men (18-55yrs)	21.99%	**94.99**	1,187	**0.08**	**0.8**			
Women (18-55yrs)	22.7%	**98.08**	13,741	**0.01**	**0.07**			
Boys (7-18yrs)	7.14%	**30.86**	495	**0.06**	**0.5**			
Girls (7-18yrs)	6.61%	**28.57**	0	**0**	**0**			
Rugby Union								
Men (19-45yrs)	14.98%	**64.71**	2,536	**0.03**	**0.01**			**0.01**
Women (19-45yrs)	15.62%	**67.46**	9,470	**0.01**	**0**			**0**
Boys (13-18yrs)	3.56%	**15.4**	459	**0.03**	**0.02**			**0.02**
Girls (13-18yrs)	3.31%	**14.29**	1,317	**0.01**	**0.01**			**0.01**
Mixed (7-12yrs)	6.88%	**29.74**	645	**0.05**	**0.01**			**0.01**
Rugby League								
Men (19-45yrs)	14.98%	**64.71**	0	**0**	**0**			**0**
Women (19-45yrs)	15.62%	**67.46**	0	**0**	**0**			**0**
Boys (12-18yrs)	4.15%	**17.91**	0	**0**	**0**			**0**
Girls (12-18yrs)	3.87%	**16.71**	0	**0**	**0**			**0**
Mixed (7-11yrs)	5.74%	**24.81**	0	**0**	**0**			**0**
Hockey								
Men (17-55yrs)	22.57%	**97.51**	0	**0**	**0**			**0**
Women (17-55yrs)	23.22%	**100.31**	0	**0**	**0**			**0**
Boys (14-16yrs)	1.83%	**7.9**	0	**0**	**0**	0	0	**0**
Girls (14-16yrs)	1.7%	**7.36**	0	**0**	**0**	0	0	**0**
Boys (11-13yrs)	1.79%	**7.74**	0	**0**	**0**	0	0	**0**
Girls (11-13yrs)	1.67%	**7.23**	0	**0**	**0**	0	0	**0**
Mixed (5-10yrs)	6.65%	**28.74**	0	**0**	**0**	0	0	**0**

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Part 3 results – Pitches

	Q5. What does the estimated demand for home matches in the relevant peak period equate to in terms of new pitch provision?				Q6. What does the estimated demand for training equate to in terms of new pitch provision?			Q7. How many pitches may be required to meet the estimated demand for home matches and training		
Sport age groups	Estimated number of natural grass pitches required per sport age group	**A5a. Estimated number of natural grass pitches required per pitch type**	Estimated number of sand-dressed artificial grass pitches required per sport age group	**A5b. Estimated number of sand-dressed artificial grass pitches required.**	**A6a. Estimated number of natural grass pitches required per pitch type**	**A6b. Estimated number of sand dressed artificial grass pitches required.**	**A6c. Estimated number of 3G artificial grass pitches required.**	**A7a. Estimated number of natural grass pitches required per pitch type**	**A7b. Estimated number of sand-dressed artificial grass pitches required.**	**A7c. Estimated number of 3G artificial grass pitches required.**
Football										
Men 11v11 (16-45yrs)	0.07	**0.07**					**0.03**	**0.07**		**0.03**
Women 11v11 (16-45yrs)	0.01									
Boys 11v11 (12-15yrs)	0.12	**0.13**						**0.13**		
Girls 11v11 (12-15yrs)	0.01									
Boys 9v9 (10-11yrs)	0.1	**0.11**						**0.11**		
Girls 9v9 (10-11yrs)	0.01									
Mixed 7v7 (8-9yrs)	0.11	**0.11**						**0.11**		
Mixed 5v5 (6-7yrs)	0.07	**0.07**						**0.07**		
Cricket										
Men (18-55yrs)	0.02	**0.03**						**0.03**		
Women (18-55yrs)	0									
Boys (7-18yrs)	0.01									
Girls (7-18yrs)	0									
Rugby Union										
Men (19-45yrs)	0.01	**0.04**			**0.03**			**0.04**		
Women (19-45yrs)	0									
Boys (13-18yrs)	0.02									
Girls (13-18yrs)	0.01									
Mixed (7-12yrs)	0.01									
Rugby League										
Men (19-45yrs)	0	**0**			**0**			**0**		
Women (19-45yrs)	0									
Boys (12-18yrs)	0									
Girls (12-18yrs)	0									
Mixed (7-11yrs)	0									
Hockey										
Men (17-55yrs)			0	**0**		**0**			**0**	
Women (17-55yrs)			0							
Boys (14-16yrs)			0	**0**						
Girls (14-16yrs)			0							
Boys (11-13yrs)			0			**0**				
Girls (11-13yrs)			0							
Mixed (5-10yrs)			0							

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Part 3 Results – Costs

	Q8a. How much may it cost to provide the new natural grass pitch provision?	**Q8b.** How much may it cost to provide the new artificial grass pitch provision?	**Q9a.** What might the lifecycle costs of the new natural grass pitch provision be?			**Q9b.** What might the lifecycle costs of the new artificial grass pitch provision be?			**Q10.** What ancillary provision may be required to support the new pitch provision?			
Sport age groups	**A8a.** Estimated capital cost to provide the new provision	**A8b.** Estimated capital cost to provide the new provision	Estimated pitch sinking fund cost (annual)	Estimated pitch maintenance cost (annual)	**A9a.** Estimated lifecycle costs for the new pitch provision (annual)	Estimated pitch sinking fund cost (annual)	Estimated pitch maintenance cost (annual)	**A9b.** Estimated lifecycle costs for the new pitch provision (annual)	Estimated number of changing rooms (natural grass pitches)	Estimated number of changing rooms (artificial grass pitches)	**A10a.** Estimated ancillary provision capital cost (natural grass pitches)	**A10a.** Estimated ancillary provision capital cost (artificial grass pitches)
Football												
Men 11v11 (16-45yrs)	**8,898**	**33,058**	285	1,468	**1,753**	810	162	**972**	0.15	0.05	**31,698**	**11,351**
Women 11v11 (16-45yrs)												
Boys 11v11 (12-15yrs)	**12,471**		885	3,817	**4,702**				0.26		**56,120**	
Girls 11v11 (12-15yrs)												
Boys 9v9 (10-11yrs)	**10,806**											
Girls 9v9 (10-11yrs)												
Mixed 7v7 (8-9yrs)	**3,395**		195	906	**1,101**							
Mixed 5v5 (6-7yrs)	**2,165**											
Cricket												
Men (18-55yrs)	**11,741**		399	1,761	**2,160**				0.06		**13,385**	
Women (18-55yrs)												
Boys (7-18yrs)												
Girls (7-18yrs)												
Rugby Union												
Men (19-45yrs)	**8,355**		301	1,245	**1,546**				0.09		**19,306**	
Women (19-45yrs)												
Boys (13-18yrs)												
Girls (13-18yrs)												
Mixed (7-12yrs)												
Rugby League												
Men (19-45yrs)	**0**		0	0	**0**				0		**0**	
Women (19-45yrs)												
Boys (12-18yrs)												
Girls (12-18yrs)												
Mixed (7-11yrs)												
Hockey												
Men (17-55yrs)		**0**				0	0	**0**		0		**0**
Women (17-55yrs)												
Boys (14-16yrs)												
Girls (14-16yrs)												
Boys (11-13yrs)												
Girls (11-13yrs)												
Mixed (5-10yrs)												