

APPENDIX A

QUALITY STANDARDS

Quality standards for Spelthorne

A vision for all open space in Spelthorne

- 1.1. To meet the needs of local communities.
- 1.2. To enhance the quality and usage of all open spaces in Spelthorne in line with the agreed quality standards.
- 1.3. To provide greater linkage between areas, particularly into the more deprived neighbourhoods.
- 1.4. To create well used open space through the provision of appropriate, high quality facilities and layout, following 'safer by design' principles.

A quality standard for urban parks and gardens

- 1.5. Urban parks and gardens should be free from dog fouling, vandalism, litter and anti-social behaviour. They should also be clean and tidy, well maintained, inviting, safe and secure with appropriate facilities and infrastructure.

A quality standard for natural and semi-natural green space

- 1.6. Natural and semi-natural green spaces should be free from vandalism, litter and anti-social behaviour. The layout and design should follow 'safer by design' principles with appropriate facilities provided in the least obtrusive manner. Sites should be maintained to an appropriate conservation standard.

A quality standard for green corridors

- 1.7. Green corridors should be free from dog fouling, vandalism, litter and anti-social behaviour. The layout and design should follow 'safer by design' principles. They should provide links between green spaces and from residential areas to green spaces.

A quality standard for amenity green space

- 1.8. Amenity green space should be free from dog fouling, vandalism, litter and anti-social behaviour. The layout and design should follow 'safer by design' principles and sites should be clean and well maintained with clearly defined boundaries, high quality facilities appropriate to their use and appropriate planting.

A quality standard for facilities for children and young people

- 1.9. Facilities for children and young people should be free from dog fouling, vandalism, litter and anti-social behaviour. The layout and design should follow 'safer by design' principles and sites should be well maintained, appropriately planted and equipped to provide a range of activities to suit varied interests and age groups.

A quality standard for outdoor sports facilities

- 1.10. All outdoor sports facilities, including ancillary accommodation, should be free from dog fouling, vandalism, litter and anti-social behaviour. The layout and design should follow 'safer by design' principles. Sites should be accessible and should follow design and maintenance standards set by the relevant national governing bodies of sport

A quality standard for allotments

- 1.11. Allotments should be free from dog fouling, vandalism, litter and anti-social behaviour. Where appropriate, access pathways and signage should be clearly provided and well maintained.

A quality standard for cemeteries and churchyards

- 1.12. Cemeteries and churchyards should be free from dog fouling, vandalism, litter and anti-social behaviour. Sites should be maintained to safe standards and should have safe and secure access where appropriate. There should be a variety of planting and facilities which reflect the local landscape character and biodiversity of the site.

Breakout session – deriving quality standards for Spelthorne

Outputs:

- A sentence or short paragraph describing the quality standard for each type of open space:
 - parks and gardens
 - outdoor sports
 - natural and semi natural
 - amenity green space
 - provision for children and young people
 - cemeteries
 - allotments
 - and green corridors.
- Each sentence or paragraph must address the four headings of:
 1. Cleanliness and maintenance
 2. Security and safety
 3. Vegetation
 4. Ancillary accommodation.
- A five minute presentation to the rest of the group.

Key questions

1. What did the public consultation say about quality?
2. What does the community plan and the local plan say?
3. How can you help to deliver those aspirations?
4. What is realistic and achievable?

Example quality statement

“A clean and litter free area that is well-lit and well-used and provides a level of varied vegetation and includes natural features such as ponds, lakes and water where appropriate. Pathways and access routes should be clearly provided and appropriate facilities for children and young people.” [Kirklees MBC]

...based on the following assessment criteria:

- *a clean and litter free area*
- *well-lit*

- *well-used*
- *provides a level of varied vegetation*
- *includes natural features such as ponds, lakes and water where appropriate.*
- *pathways and access routes clearly provided*
- *appropriate facilities for children and young people.*

What the public said about the quality of Spelthorne's open spaces

- The research findings indicate that the most significant problem across open space in the borough is as follows:
 - dog fouling
 - vandalism and graffiti
 - litter
 - and anti-social behaviour.
- The quality of open space is generally considered good across the borough.
- Factors that residents are satisfied with, regarding open space in the borough, include planted and grass areas, boundaries eg railing, hedges, pathways and maintenance and management
- Consultation has however, highlighted concerns relating to:
 - provision of toilets
 - lack of provision of seat/benches
 - provision of bins for litter
 - information and signage
 - vandalism
 - antisocial behaviour
 - dog fouling/ no dedicated bins.
- The research findings show that cleanliness and tidiness is the one main factor that residents consider to be important in open space. Other factors considered to be important comprised 'provision for bins', 'dog walking facilities', 'maintenance and management', 'security' and 'toilets'.
- **Parks and gardens.** Sites that were mentioned as being good quality in general were Laleham Park and Lammas Park. Staines Park was thought to be well maintained and tidy with good amenities such as clean toilets and places to eat. There was considered an overall lack of benches and shelters in the parks.

- **Natural and semi-natural.** Residents indicated that the quality of natural and semi natural green spaces in the borough is good. The high percentage of this open space type in the borough consists of water ie the reservoirs and gravel pits.
- **Green corridors.** There are concerns regarding overgrown paths in walking areas. People would reportedly use walking routes if they were of better quality and well maintained and signposted.
- **Amenity green space.** Residents indicated that they are satisfied with the quality of these areas and that they believe these are the best maintained open space type in the borough
- **Provision for children and young people.** Children's facilities were considered as good quality in the borough, specifically at Green Street Playground and Lammas Park. It was considered to be important to also have good facilities for older children.
- **Outdoor sports facilities.** Most of those consulted are happy with the quality of outdoor pitches, however believe the ancillary facilities could be improved.
- **Allotments.** Quality of the actual plots is the responsibility of the plot holder, however most residents believe these are well managed and well maintained.
- **Cemeteries and churchyards.** Limited comments were made on the quality of this type of open space.

What officers said about the quality of Spelthorne's green spaces

- There are some good examples of 'Good Practice' sites with the main one being Laleham Park and Lammas Recreation Ground. They provide a varied number of spaces within one central geographical area meeting the needs of various age ranges and are very well used. Investment in the skatepark in Lammas has improved the overall quality of the park and has attracted an active skating community.
- Sports pitches are well used and are thought to be well complemented with good changing facilities, however it was reported that the prices for pitch hire have increased from £40 to £70 per match this season (2004/05) and as a result usage levels have dropped.
- Self management of allotments generally works very well and is considered to improve the quality of the allotments. Shepperton Village Allotment Gardens is a particularly good example where self management has been a success.
- There is an over-riding problem of anti-social behaviour by teenagers in play areas and other open spaces and this often discourages usage of open spaces by other people. Particular problems have been sited at Ashford Recreation Ground, Hengrove, Staines Park, Clockhouse Lane and Wicketts Park (the latter thought to be particularly bad). It is hoped that the issues in Clockhouse Lane will be resolved through actions taken as part of the liveability project.
- Linked to the above point is the issue of vandalism. Kenyington Recreation Ground in particular has suffered and the pavilion has been broken into more times than any other Council building, causing thousands of pounds worth of damage. The issues prevalent at this venue are being resolved through girls youth football and the increased usage has meant better security. A group shelter has also been installed and local people are getting more involved.

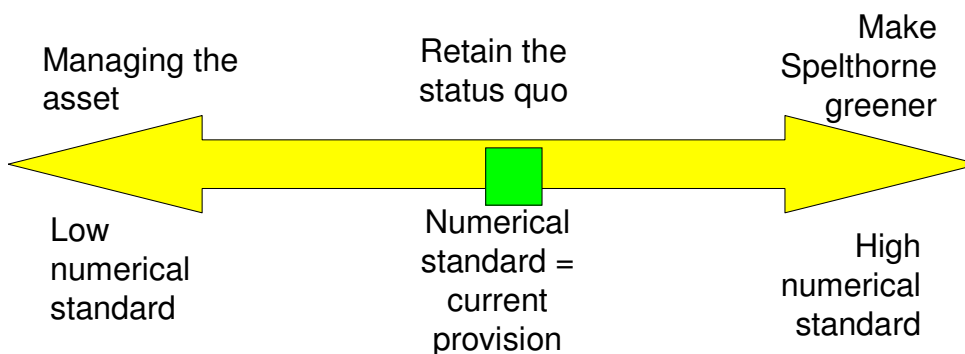
- The involvement of the PCSOs have been influential in helping to combat vandalism. They are employed by the police and part funded by Spelthorne Borough Council. There are currently four PCSOs covering four areas but they will troubleshoot at all parks if required. To date, damage caused by vandalism has decreased by £13,000 over the last year. The PCSOs are good as expert witnesses and their key objective is to communicate with youngsters in an attempt to eradicate anti-social behaviour.
- There is a current problem with the usage of natural open spaces for motorbiking. A possible solution is for PCSOs enforcing the powers available to them, which may help to resolve the problem although it is acknowledged that there maybe risks associated with this approach.
- Quality of the sports pitches throughout the borough was thought to be quite low due to drainage and maintenance issues. The National Playing Fields Association (NPFA) has previously highlighted the problems but these have not yet been addressed.
- Quality of the parks are considered good in terms of grass cutting and vegetation (especially Fordbridge Park) and the parks department is working towards a safer environment.
- Many of the playgrounds are old and it is difficult to meet NPFA standards due to the positioning of major roads such as the M25, M3 and A30.
- Dog fouling is widespread and a common problem. Priority is being given to working on management plans pertaining to dog management in an effort to control dog fouling and to achieving Green Flag status for the parks. The deadline for the latter is February.

Methodology for setting quantity standards

- 1.13. Quantity standards were set by officers at a workshop facilitated by PMP.
- 1.14. It was agreed not to set a standard for green corridors as per guidance in the PPG17 Companion Guide.
- 1.15. The workshop discussed the concept of a hierarchy of open spaces and it was agreed that in broad terms the types could be classified as follows:
- strategic: parks and gardens, outdoor sports facilities
 - middle order: cemeteries, allotments
 - neighbourhood: amenity space, children’s play.
- 1.16. Standards would only be applied at ward level if they related to a neighbourhood open space type ie amenity space or children’s play. Again, green corridors were not included.

Developing the vision for open space

- 1.17. Officers spent some time considering a vision for the future of open spaces. Having considered the key strategic objectives in the local plan, and the objectives in the community plan, officers showed their “vision” for Spelthorne’s open space by placing a marker on the continuum diagram shown below. It was resolved to make Spelthorne greener by adopting challenging numerical standards.



Standards setting exercise

1.18. Local standards were derived as follows:

- officers considered standards for each type of open space
- headline descriptive statistics were derived for each analysis area which showed the number of hectares per thousand population (ha/1000 population)
- it was agreed to have a single, borough wide standard for each type of open space
- benchmarking with other authorities was undertaken to see how these descriptive statistics compared
- officers then considered the feedback from the consultation to understand the views of local people in terms of not enough/about right/too much open space of different categories
- officers also considered how they would deliver the vision “to maintain the current level of open space in Spelthorne”
- standards were then applied to wards and the whole borough using a spreadsheet, to test the effects of different numerical values of standard
- officers discussed the implications of different standards and came to an agreement on numerical values for each type
- a briefing note was issued following the workshop so that officers were able to reflect on what they discussed and agreed.

APPENDIX B

TECHNICAL APPENDIX

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1. Demographic Data

The demographic data source used is the most comprehensive source of demographic data, namely the 2001 Census.

2. Population Projections Data

Revised demographic reports are based on the 2001 census. However the “official” revised population projections will not be available until late 2004. Population projections for PMP’s demand models are based on 1996 projections with an amendment to reflect the 2001 census. The 2001 census results have highlighted significant discrepancies in the 1996 estimates and actual figures for 2001. Details of the population projections can be found on the {data} tab of the demographic report.

The projections show what population levels would result if assumptions about future migration, fertility and mortality were exactly realized. The assumptions underlying the calculation of the projections are based on recent demographic trends and do not reflect the impact of future policies (social or economic).

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3. Sport and Leisure Data

This data source is derived from Continental Research’s Million Plus Panel. This panel comprises a pool of over 2 million UK residents and holds over 3,000 lifestyle, demographic and purchasing details. This panel is a representative sample of the Experian Ltd (ICD) Lifestyle database, which has in excess of 12 million records.

The Million Plus Panel allows minority groups, such as Golfers or Stamp Collectors (for example people who represent less than 1% of the population) to be analysed and profiled.

The Panel is updated biannually and therefore represents a comprehensive and up to date data source.

All records have a valid postcode attached to them. Any sample area can therefore be profiled by collating all records (postcodes) that fall within the target area and comparing this profile to the profile of the whole database (which represents GB).

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4. Facility Audits (existing supply)

Below are brief details of the methodology that is followed when completing facility audits.

A wide variety of sources of audit information are used to identify target facilities (public and private), including

- Mapping the Future’s (MtF) audit of facilities, which includes data on health and fitness facilities, swimming pools, sports halls, synthetic turf pitches, golf courses, playing pitches, athletics tracks, 5-a-side soccer centres.

- Various internet search engines and other web sites
- AFD Postcode software, identifying all postal addresses within the target areas.
- Audits are validated by using designated list companies, for example JS Turner Direct Marketing. The main output from such organisations are lists of facilities, which are quality checked and updated by designated teams of MtF researchers.

Every facility identified is quality checked by telephone to ensure the facility details are accurate, to assess the level of public access (management) and to confirm the level of provision and charges, where required.

Level of provision is measured in different units depending on the target facility, but the main facility types use the following units:

- Health and fitness – number of stations (including all cardiovascular and resistance machines. Free weights are not included)
- Sports halls – number of badminton courts
- Swimming pools – pool area in metres squared

Proposed facilities may also taken into account and are identified through the National Planning Databases, for example Glenigan Direct.

5. Facility Audits (future supply)

To predict the future supply of facilities, current planning applications are researched. Companies such as Glenigan Direct specialise in such data. All planning applications that might contain any swimming pool developments are then assimilated into the models to assess future demand.

The actual size of the planned facilities is often unknown, therefore the size is estimated to be the common size of swimming pool (one pool unit, 212m²) (or sports hall (four badminton courts) or the average size of facility from the audit of present facilities (for example health and fitness)).

The exceptions to this are where the client that is developing the site is a major / national operator. This is especially important in the health and fitness market. For example, if a Fitness First, Holmes Place or other large operator are planning a site, their completed scheme is likely to have around 100 stations of health and fitness equipment and a swimming pool of 25metres is not uncommon. Therefore, such planned facilities are given the appropriate value.

However, planning applications can be at a number of different stages, from submission of outline plans to having detailed plans granted. At any stage of the planning application process a scheme can run into difficulties and lead to planning permission not being granted. Due to this the demand models consider two different scenarios, namely, 'The most likely scenario' and 'The worst case scenario'.

The most likely scenario

This scenario only includes those planning applications that have had detailed plans granted or have started work on site. Such facilities are the most likely facilities to be in place within the next 3-5 years.

The worst case scenario

Unlike the previous scenario this one assumes that all planned facilities that are going through the application process will gain permission. This is a very unlikely event, but does represent the worst possible picture of the future.

6. Generation of Catchment Area and Population

All demand models are based upon the population within a predefined catchment area. Usually this is a drivetime catchment, but there are other types also utilised, including:

- a radial ('as the crow flies' distance from a central point) catchment,
- user defined (a catchment area defined by existing membership / usage),
- a drive length catchment (where the catchment boundary is calculated by traveling along all possible roads from a central point for a certain distance).

Drivetime catchments

Drivetime catchments are similar to drive length ones, but instead of traveling on every possible combination of roads from a central point for a certain distance, the boundary of the catchment is defined by a travel time down each road combination.

There are several important aspects to generating such catchments, namely:

- For drivetime catchments to be possible, the road speed for every road is required. In the MtF system the average road speeds published by the AA are used. These are dependent upon the urban density through which the road lies.
- The term 'average' means that it is the road speed that is possible taking into account maximum road speeds, stopping delays, but assumes that congestion is minimal (off peak).
- Peak drivetimes which take congestion into account are not widely used because they are too unpredictable. Congestion is dependent on so many things, for example, time of day, day of the week, day of the year (bank holidays), school holidays, road works, etc. Therefore, no one drivetime would cover peak conditions.
- Off peak drivetimes are arguably more appropriate as much of the peak hours of sport and leisure facilities is during times of minimal congestion.
- Off-peak drivetimes are an average representation of drivetimes. Therefore, just because it might be possible to travel further or not as far on occasions, this does not make the drivetimes incorrect.

- Special considerations have been made for roads that are located in London. London roads have had their road speeds reduced to a greater extent than other urban roads.
- The details and level of accuracy of a Drivetime catchment is dependent upon the complexity of the mapping road layer that is used to generate such catchments. The different road layers are typically at the following scales:
 - Street Level – very detailed but requires much detail on road character, access, navigation and restrictions (e.g. no right turns, one way, bus lanes etc). This layer is costly to operate and keep up to date, and arguably goes into too much detail.
 - 1:200,000 scale layer – detailed road layer concentrating on major roads. Less detailed than the street level layer but less dependent upon accurate and up to date road restriction / navigation data.
 - 1:500,000 scale layer – less detailed network of roads. Quick and easy to use but produces generalized output drivetimes.

For the uses of the MtF system the 1:200,000 road layer is most commonly used. It combines a sufficient level of detail with value for money and usability

- The size of drivetimes are often defined in conjunction with the demand parameters. For example Sport England estimate that the most significant size of catchment for sports halls and swimming pools in urban areas is 15 minutes. The corresponding size for health and fitness is less than this. This is due to the presence of far more facilities of this type. Therefore, potential users have more choice of where to travel to and therefore are not prepared to travel for large distances. Market leaders in health and fitness provision now use a combination of drivetimes commonly between 5 and 12 minutes.

Population within drivetime catchments

Once drivetimes have been created the population within them is calculated. The accuracy of this calculation is dependent upon two things. Firstly the method by which the drivetime was calculated (and therefore its size), and secondly, the method by which the demographic data underlying any map is stored and then used.

Mapping packages in general use two methods to calculate populations. Demographic data is stored at a number of levels, for example at ward, postcode sector (M22 5) or enumeration district (ED) level. When it is stored at ED level it is possible to count all the EDs that are located within a drivetime. Where an ED intersects the boundary of the drivetime it is either included or not depending on the location of the geometrical center of the ED. If this center is located outside the boundary then it is ignored, and if it is inside then it is included. This assumes that the amount that are excluded will be compensated by those that are included.

Where postcode sectors or wards are used (larger areas) there are often not enough of them in a drivetime to allow an accurate use of geometrical centers. Therefore, they use a different methodology of calculating populations. Where a postcode sector or ward is intersecting the drivetime boundary, the percentage of its area that lies within it is calculated. This percentage is then applied to the population data within the postcode

sector / ward. This alleviates the issue of including and excluding peripheral area, but it does assume that the distribution of population within postcode sectors / wards is even throughout.

The MiF system uses the second methodology.

Different systems generate different drivetimes and different populations

From the above it can be seen that differences in drivetime calculations and the subsequent calculations of populations is possible between different mapping packages. Each package will calculate road speeds slightly different, some take into account delays at every roundabout, traffic light and junction, some do not take into account urban density and its impact on road speeds.

Furthermore, different packages store demographic data at different levels and calculate populations in either of the methods explained above.

However, no system is more right or wrong than any other, but care should be taken if comparisons are being made between results from different mapping packages. That is, just because both are generating a 15 minute off-peak demographic report does not mean that they will be identical.

7. Demand Modelling – Swimming Pools

Any model is a snapshot of reality that has been based upon a number of assumptions. A brief methodology of the demand model and the assumptions on which it is based follow.

What size of facility is required to cater for estimated demand?

The demand model is based upon the estimated demand of any catchment area. Demand is assessed using two criteria - Age and Gender. Sport England has researched parameters of swimming pool demand based on these two criteria. It is these parameters that have been used in this model (They are displayed on the Demand Model Sheet itself).

Therefore, once the age and gender breakdown of any population is known, the potential demand for swimming can be estimated.

At one time capacity

The supply that is needed to cater for this demand is then calculated. In order that all demand is catered for, the supply will need to be sufficient in size to cater for the maximum demand at any point in time. The at one time capacity has to therefore be able to cater for the maximum demand.

At one time capacity (the capacity in any peak session) is then used to calculate the necessary supply. This is based on a number of assumptions that have been researched by Sport England. They are as follows:

- Proportion of visits during peak times = 63%
- Average duration of visit = 64 minutes (tank), 68 minutes (leisure pool)
- Normal peak periods = 52 hours per week = 49 peak sessions
- At one time capacity = 6m² per person
- A one time capacity is defined as the supply/capacity of one m² of pool area at any one time
- Capacity per 212m² (1 pool unit) = 35 people. (number of metres squared divided by the at one time capacity of one m²)
- A pool unit is defined as an average four lane, 25 metre pool.

This calculates a total supply in metres squared that is necessary to meet the maximum demand. This figure is compared to the existing supply, which is calculated from a detailed competition analysis.

Assessing current supply

A detailed competition analysis is performed on the catchment area and the size of pool area available to the public is researched. Supply is then calculated for the total pool area that is available to the public for casual use. Private pools and pools that do not allow any casual swimming are taken out of the calculation of pool supply. Supply of pool areas that have limited public access are adjusted/reduced accordingly.

Comparing the existing supply (measured in pool area) to the current estimated demand (measured in pool area) quantifies the current over supply or unmet demand of swimming pools (measured in pool area).

Other assumptions used within demand models

The model relies on other assumptions, namely:

- It is assumed that all pools within the catchment are equally accessible, irrespective of relative location within the catchment.
- It assumes that the number of people residing just outside the catchment who will use pools within the catchment is equal to the number of people who reside within the catchment and use pools outside the catchment.

Modelling future situations

Demand in the future

The model can be rerun taking into account the projected changes in demand as a result of changes in population. The base model uses population figures from 2001.

When estimating future demand it is assumed that an increase in population of 10% will result in a 10% increase in demand for pool area. This allows the estimated demand for swimming pool area to be projected into the future.

Supply in the future

The supply in the future is assessed using the methodology outlined in Section 5. All planned facilities will not come to fruition. Therefore, the future supply is assessed in two future scenarios, namely:

- 'The most likely scenario' – only those developments that have detailed plans granted or have started to build on site are included, and
- 'The worst case scenario' – where all planned facilities actually come to fruition and are therefore included.

The projected supply and demand are then compared, to quantify the level of over or under supply up to five years into the future.

Demand Modelling – An Objective Tool

The model methodology above provides an objective assessment of the relationship between supply and demand. The local context and other more subjective factors are not considered at this stage. As a result conclusions generated from the demand models should be taken in this context and where possible used in conjunction with an analysis of the local context. Other considerations that are useful to consider include:

- *The quality of existing provision.* If there is an over supply, but a significant amount of it is in a very poor state of repair then a new competitor in the market place could be financially viable.
- *Access to existing provision.* There might be gaps in the market even if there is an overall over supply. This might be when provision is concentrated on a few sites, or more concentrated in certain areas. Therefore, some potential markets can not successfully access the existing supply due to its spatial distribution.
- *Price / value for money.* For example, in the health and fitness market, different facilities are differentiated by price rather than whether they are public or private. It is price that can now affect and control the attractiveness of facilities.
- *The facility mix of existing provision.* For example, if a health and fitness club includes a swimming pool its chances of success are greater than one without, especially if membership subscriptions are similar. Therefore, a facility offering a better service than the existing provision can be successful in an area where there is little or no unmet demand. However, its success will often be to the detriment of the existing provision.
- *If you increase the supply the demand will increase as a result.* This is a tested methodology when used in a road building context. That is, if a new road is built all that happens is that cars fill it up until journey times are reduced to the same time as was the case before the new road was built. In the scenario of sports facilities, demand will increase when supply grows, but by how much has yet to be researched and quantified.
- *Differentiated product in the new facility.* A new facility must have a product that is significantly different and/or better than what is currently provided for. For example, if there are no leisure pools in an area of over supply of pool area and one is opened, its viability is possible because this type of facility is not currently provided for.
- *Local Economic Plans.* If there are any local developments that will bring in new residents and employees/ers, and not just cater for natural population changes, then they will impact on the population projections in that area.

8. Demand Model – Sports Halls / Squash Courts

This model works on exactly the same principals as the swimming pool model, but with the relevant parameters.

These parameters include: (Source: 1999 Sport England)

Assumptions/Parameters used in Model:

- Proportion of visits during peak times = 60%
- Average duration of visit = 1 hour
- Normal peak periods = 40.5 hours per week
- At one time capacity = 5 people per badminton court

Squash courts can also be analysed using the same methodology, but currently the only demand parameters published are those researched by Sport Scotland.

9. Demand Modelling – Health and Fitness

The commercial value of and growth in the health and fitness market has resulted in this type of facility to be vitally important to assess. Below is the methodology used in assessing unmet demand in this type of facility.

Demand for health and fitness

There are few demand parameters for health and fitness. This is because:

- Sport England has completed little research in this sector
- It is a very financially and commercially sensitive sector, which results in any research completed being confidential
- There are so many different types of health and fitness facilities, from a small back room gym with free weights only to a 10,000 sqft fully equipped and air conditioned gym as part of an even larger multi sport club.

The demand model is based upon the estimated demand of any catchment area. Demand is assessed using two criteria – Total Adult Population and Sport and Leisure Potential. The Sport and Leisure Potential is assessed using data from the Million Plus Panel (see Section 3).

Therefore, once the population and propensity of this population to participate in health and fitness is known, the potential demand for health and fitness can be estimated.

The supply that is needed to cater for this demand is then calculated. In order that all demand is catered for the supply will need to be sufficient in size to cater for the maximum demand at any point in time. The 'at one time capacity' has to therefore be able to cater for the maximum demand.

At one time capacity (the capacity in any peak session) is then used to calculate the necessary supply. This is based on a number of assumptions that are listed at the start of each model, and include:

- ✓ The average health and fitness session is one hour
- ✓ 65% of use is during peak times
- ✓ Peak times are 5-9pm Monday to Friday and 9am-5pm weekends (36 hours in a week).
- ✓ The average user participates on average 1.5 times per week or six times a month.

The model defines health and fitness users as all people participating in health and fitness, including private club members, users of local authority facilities, body builders and home users. A reduction of 10% in the demand for stations is assumed to represent the proportion of health and fitness users who do not use gyms, for example 'home' users.

It is also assumed that the at one time capacity is calculated by the ratio of one person per station (a station is a piece of equipment – cardio vascular and resistance).

Equipment such as free weights, stretch mats and ab cradles are not included. Their exclusion is due to the life span, range of and type of such 'equipment'.

Example One: A mat used for stretching could be in a designated warm up/down area, with other stretching aids, or could be a small mat positioned in between two resistance machines. Therefore, from facility to facility and indeed from day to day within a facility the quality and quantity of such equipment is flexible.

Example Two: The capacity of free weights equipment is also difficult to assess. Is it defined by the physical floor area that it is located in, the number of benches, the number of bar bells and/or the number of dumb bells?

Example Three: More 'perishable' equipment such as mats and ab cradles will frequently not be included in health and safety and operational assessments of a health and fitness area's capacity.

Furthermore, supply/capacity/demand is measured using stations (pieces of equipment) rather than membership or floor area, because it is the most accurate and accessible type of measurement.

Membership numbers are commercially sensitive and are problematic to establish. The official number of members for a club can also be different to the actual number. For example, membership numbers can be inflated to imply the club is more successful and larger than perhaps it might be.

Floor area is also difficult to assess. It is not a commonly known piece of information and the floor area can include circulation space and corridors, changing facilities, other facilities, etc. Therefore, it is difficult to obtain this information in the first place and once located, it is often unclear as to what the floor area actually covers.

Therefore, the number of stations in a health and fitness facility is used to quantify the level of supply that is necessary to meet the maximum demand.

The demand figure is then compared to the existing supply which is calculated from a detailed competition analysis.

Assessing current supply of health and fitness

A detailed competition analysis is performed on the catchment area. The number of stations available is researched. Some assumptions are used in this research exercise, namely:

- It is assumed that all facilities within the catchment are equally accessible, irrespective of relative location within the catchment.
- It assumes that the number of people residing just outside the catchment who will use health and fitness facilities within the catchment is equal to the number of people who reside within the catchment and use health and fitness facilities outside the catchment.

The model can be rerun taking into account the projected changes in demand as a result of changes in population. The base model uses population figures from 2001.

In line with other demand models it is assumed that an increase in population of 10% will result in a 10% increase in demand for health and fitness stations.

Therefore, the estimated demand for health and fitness stations can be projected to the present day and into the future. This figure is compared to the estimated supply in the same projected year. The methodology for assessing this is identical to that detailed in the swimming pool demand model (see Section 8).

10. Demand for Other Facilities

Any type of facility that has published demand parameters can be assessed using a very similar methodology as described above. The detail of the model however is dictated by the robustness and type of demand parameters researched for each facility type. To date the most accurate demand parameters have been published by Sport England and Sport Scotland as part of their Facilities Planning Model programme. They include national audits of facilities (not published) and comprehensive national surveys to assess demand. To date Sport England has only run models on the following facilities:

- Sports Halls
- Swimming Pools

However, they are in the process of assessing synthetic turf pitches and indoor bowls (and soon indoor tennis). Until they have been completed older and less detailed parameters are the most appropriate to use.

Facilities such as synthetic turf pitches and athletics tracks have published normative demand parameters. An example of which is:

“One full size synthetic turf pitch for every 60,000 resident people within a 20 minute off-peak drivetime”

Such parameters can be used to assess the demand from the population of any catchment (by total numbers only) and then supply can be assessed in the same way as before.

Where there are no published demand parameters for facilities for example outdoor bowls (in England) and theatres, demand models are not possible. Supply can be assessed as normal but then the only indication to a gap in the market is an analysis of the spatial distribution of the facilities.

APPENDIX C

DEMOGRAPHIC REPORT AND DEMAND MODEL

Demographic Profile - 2001 Census



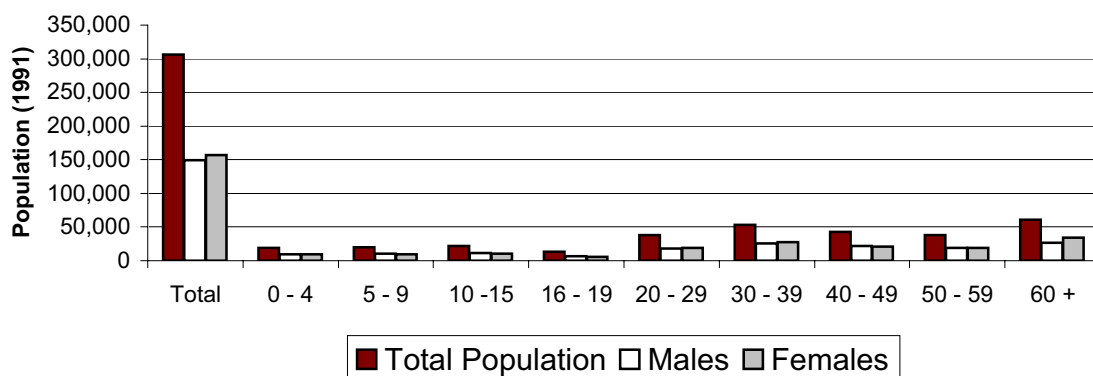
Report for : PMP
 Defined Area: Spelthorne District and 3 km Buffer
 Postcode: N / A

	Results from area	Results as % of area	Results as % of England & Wales	Results as % of GB	From GB % Index (ave. =100)	From GB % Index difference	From England & Wales % Index (ave. =100)	From England & Wales % Index difference
Total Population	306,460	100	100.0	100	100	0	100	0
0 - 4	19,235	6.3	6.0	5.7	110	10	105	5
5 - 9	19,702	6.4	6.4	6.2	103	3	101	1
10 -15	22,114	7.2	7.8	7.8	93	-7	92	-8
16 - 19	12,909	4.2	4.9	4.9	85	-15	86	-14
20 - 29	37,649	12.3	12.7	12.6	98	-2	97	-3
30 - 39	53,432	17.4	15.6	15.6	112	12	112	12
40 - 49	42,370	13.8	13.4	13.8	101	1	103	3
50 - 59	38,262	12.5	12.6	12.6	99	-1	99	-1
60 +	60,787	19.8	20.8	20.9	95	-5	96	-4
Males								
Total	149,781	48.9	48.7	48.4	101	1	100	0
0 - 4	9,751	3.2	3.0	2.9	109	9	104	4
5 - 9	10,112	3.3	3.3	3.2	104	4	101	1
10 -15	11,449	3.7	4.0	4.0	94	-6	93	-7
16 - 19	6,807	2.2	2.5	2.5	88	-12	89	-11
20 - 29	18,427	6.0	6.3	6.2	97	-3	96	-4
30 - 39	26,038	8.5	7.7	7.6	112	12	111	11
40 - 49	21,419	7.0	6.6	6.8	103	3	105	5
50 - 59	19,114	6.2	6.2	6.2	100	0	100	0
60 +	26,664	8.7	9.1	9.0	97	-3	96	-4
Females								
Total	156,679	51.1	51.3	51.6	99	-1	100	-0
0 - 4	9,484	3.1	2.9	2.8	111	11	106	6
5 - 9	9,590	3.1	3.1	3.0	103	3	101	1
10 -15	10,665	3.5	3.8	3.8	92	-8	91	-9
16 - 19	6,102	2.0	2.4	2.4	82	-18	83	-17
20 - 29	19,222	6.3	6.4	6.4	99	-1	98	-2
30 - 39	27,394	8.9	7.9	8.0	112	12	113	13
40 - 49	20,951	6.8	6.7	7.0	98	-2	101	1
50 - 59	19,148	6.2	6.3	6.4	98	-2	99	-1
60 +	34,123	11.1	11.7	11.9	93	-7	95	-5
Ethnic Origin								
All White	280,721	91.6	90.9	0.0	N/A	N/A	101	1
White - British	261,898	85.5	87.0	0.0	N/A	N/A	98	-2
White - Irish	5,618	1.8	1.3	0.0	N/A	N/A	144	44
White - Other	13,205	4.3	2.7	0.0	N/A	N/A	162	62
All Black	3,450	1.1	2.3	0.0	N/A	N/A	49	-51
Black - Caribbean	1,454	0.5	1.1	0.0	N/A	N/A	42	-58
Black - African	1,717	0.6	1.0	0.0	N/A	N/A	58	-42
Black - Other	279	0.1	0.2	0.0	N/A	N/A	47	-53
Chinese	1,713	0.6	0.4	0.0	N/A	N/A	124	24

	Results from area	Results as % of area	Results as % of England & Wales	Results as % of GB	From GB % Index (ave. =100)	From GB % Index difference	From England & Wales % Index (ave. =100)	From England & Wales % Index difference
Ethnic Origin contd								
All Asian	12,831	4.2	4.6	0.0	N/A	N/A	92	-8
Asian - Indian	8,245	2.7	2.1	0.0	N/A	N/A	129	29
Asian - Pakistani	2,114	0.7	1.4	0.0	N/A	N/A	48	-52
Asian - Bangladeshi	711	0.2	0.6	0.0	N/A	N/A	41	-59
Asian - Other	1,761	0.6	0.5	0.0	N/A	N/A	119	19
Others	2,678	0.9	0.4	0.0	N/A	N/A	200	100
All Mixed	5,215	1.7	1.3	0.0	N/A	N/A	130	30
White and Black Caribbean	1,149	0.4	0.5	0.0	N/A	N/A	80	-20
White and Black African	537	0.2	0.2	0.0	N/A	N/A	112	12
Mixed - White and Asian	2,121	0.7	0.4	0.0	N/A	N/A	184	84
Mixed - Others	1,408	0.5	0.3	0.0	N/A	N/A	149	49
Residents who have a limiting long-term illness	41,368	13.5	17.0	17.5	77	-23	79	-21
Economic Activity of Household Residents (aged 16 and over)								
Total	248,895	[total of all economic sub-types]						
In Full-time employment	122,577	49.2	39.0	40.5	122	22	126	26
In Part-time employment	33,100	13.3	12.8	13.1	101	1	104	4
Self employed	20,744	8.3	5.2	5.7	147	47	159	59
Unemployed	5,109	2.1	2.5	3.0	67	-33	83	-17
Students	11,974	4.8	18.3	12.5	38	-62	26	-74
Permanently Sick/Disabled	6,617	2.7	4.3	5.6	48	-52	61	-39
Retired	28,107	11.3	9.9	11.3	100	-0	114	14
Other inactive	5,847	2.3	2.5	3.1	77	-23	92	-8
Looking after home/family	14,820	6.0	5.3	5.2	115	15	111	11
Males								
In Full-time employment	77,724	31.2	25.3	26.0	120	20	123	23
In Part-time employment	7,097	2.9	2.7	2.7	106	6	105	5
Self employed	15,213	6.1	3.8	4.1	149	49	161	61
Unemployed	3,105	1.2	1.5	1.9	64	-36	83	-17
Students	5,837	2.3	9.2	6.1	38	-62	26	-74
Permanently Sick/Disabled	3,475	1.4	2.4	3.0	47	-53	59	-41
Retired	11,979	4.8	4.0	4.5	106	6	120	20
Other inactive	2,630	1.1	1.1	1.3	80	-20	96	-4
Looking after home/family	766	0.3	0.4	0.4	79	-21	84	-16
Female								
In Full-time employment	44,853	18.0	13.7	14.5	124	24	132	32
In Part-time employment	26,003	10.4	10.1	10.5	100	-0	104	4
Self employed	5,531	2.2	1.5	1.6	141	41	148	48
Unemployed	2,004	0.8	1.0	1.1	72	-28	83	-17
Students	6,137	2.5	9.4	6.5	38	-62	26	-74
Permanently Sick/Disabled	3,142	1.3	2.0	2.6	49	-51	64	-36
Retired	16,128	6.5	6.2	6.9	94	-6	104	4
Other inactive	3,217	1.3	1.4	1.7	75	-25	90	-10
Looking after home/family	14,054	5.6	5.0	4.8	117	17	113	13
Lone Parents								
Total	245,409	[Total of All People aged 16+]						
Male	12,679	5.2	5.6	6.0	86	-14	91	-9
Female	1,924	0.8	0.8	0.8	98	-2	101	1
Female	10,755	4.4	4.9	5.2	84	-16	90	-10

	Results from area	Results as % of area	Results as % of England & Wales	Results as % of GB	From GB % Index (ave. =100)	From GB % Index difference	From England & Wales % Index (ave. =100)	From England & Wales % Index difference
Tenure of Households								
Total Occupied Household Spaces	128,990							
Owned	96,371	74.7	68.7	65.7	114	14	109	9
Private Rented or Living Rent Free	13,404	10.4	12.0	11.2	93	-7	86	-14
Rented from Council	9,600	7.4	13.2	17.4	43	-57	56	-44
Other Social Rented	9,615	7.5	6.1	5.8	128	28	123	23
Car Availability by Household								
with no car	22,400	17.4	26.8	30.5	57	-43	65	-35
with 1 car	56,381	43.7	43.7	43.5	100	0	100	0
with 2 cars	50,052	38.8	29.5	26.0	150	50	132	32
Social Class of Head of Household								
Total Head of Household (aged 16+)	242,690							
AB - Higher & Intermediate managerial/admin/professional	65,965	27.2	22.2	20.6	132	32	122	22
- Supervisory, clerical, junior C2 - Skilled manual workers	82,831	34.1	29.7	28.1	121	21	115	15
D - Semi-skilled & unskilled manual workers	31,846	13.1	15.1	14.8	89	-11	87	-13
E - On state benefit, unemployed, lowest grade	31,228	12.9	17.0	17.3	75	-25	76	-24
	30,820	12.7	16.0	19.2	66	-34	79	-21

Graph to illustrate population by age and gender.



Population Projection Report

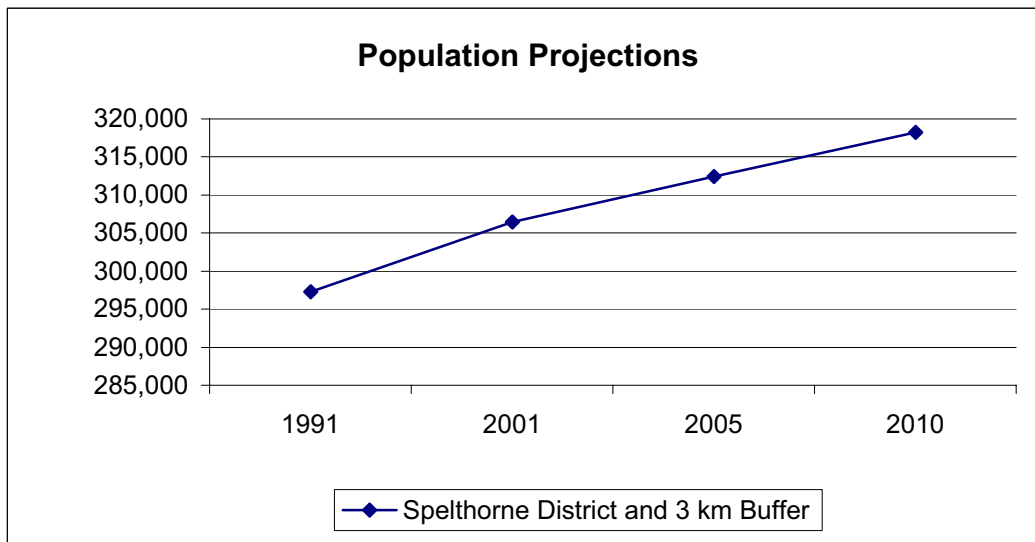


Report for : PMP
Defined Area: Spelthorne District and 3 km Buffer
Postcode: N / A

Data Table:

	Population
1991	297,318
2001	306,460
2005	312,421
2010	318,232

Population Projections	1991-2000	2001-2005	2001-2010
Spelthorne District and 3 km Buffer	3.0%	1.9%	3.8%
Actual Total Change	9,142	5,961	11,772



Source: 1996 Sub-National Projections. Reproduced by permission of the Office of National Statistics.

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Note: Some variations may occur in projections due to the changes in postal geography.

MtF Demand Model - Swimming Pools - PART A - DEMAND SIDE

Target Area: **Spelthorne District and 3 km Buffer**

Target Site: **N / A**



Any model is based on a number of assumptions. The assumptions used in this model are as follows:

Assumptions/Parameters used in Model

Source: 2004 Sport England

- Proportion of visits during peak times = 63%
- Average duration of visit = 64 minutes (tank), 68 minutes (leisure pool)
- Normal peak periods = 52 hours per week = 49 peak sessions
- At one time capacity = 6m² per person
A one time capacity is defined as the supply/capacity of one n² of pool area at any one time
- Capacity per 212m² (1 pool unit) = 35 people. (number of metres squared divided by the at one time capacity of one n²)
A pool unit is defined as an average four lane, 25 metre pool.

These assumptions are then applied to the population (classified by age and gender) of the target area. Calculated Sport England demand parameters for each category of age and gender are also applied (see the following table).

Demand Assessment Table

Demand in relation to the age and gender profile of the target area is calculated by applying the Sport England parameters to it.

Age group	Population		Rate of participation (%)		Participation numbers		Frequency of participation (per week)		Visits per week		Peak visits (63%)
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
0-15	31,312	29,739	13.23	12.72	4143	3783	0.92	0.95	3811	3594	4665
16-24	15,110	14,453	10.86	14.51	1641	2097	0.84	0.76	1378	1594	1872
25-39	36,162	38,265	13.73	18.89	4965	7228	0.71	0.79	3525	5710	5818
40-59	40,533	40,099	8.13	10.44	3295	4186	0.94	0.81	3098	3391	4088
60-79	22,777	25,929	3.93	4.52	895	1172	1.18	1.07	1056	1254	1455
Total	145,894	148,485			14,939	18,467			12,869	15,543	17,899

Quantifying Demand

The figure of total visits during peak times is used to calculate the size of a swimming pool needed to serve this demand at any one time.

This is calculated by:

- dividing the total peak visits by the number of peak sessions(49)
- divide by the water area required by one person (6m² of pool area).
- allow for the comfort capacity at 70% of peak time usage

This leaves one number signifying the total demand from the catchment area, measured in square metres of pool.

Standard
365
6
70%
3131

Standard
Water area required to meet potential demand/m², in 2001 : **3131** m²
 The corresponding demand in 2005 will be : **3192** m²
 The corresponding demand in 2010 will be : **3251** m²

Pool Units Required in 2001: 14.8
Pool Units Required in 2005: 15.1
Pool Units Required in 2010: 15.3

A pool unit is equal to: 212 m² or a 4 lane 25 metre pool

Note: Demand will change over time in relation to the increase or decrease in resident population

Demand Sensitivities

The model calculates the total potential demand for swimming and assumes that each pool will operate on average at 70% peak time capacity to provide comfort for users. Once this 70% capacity has been exceeded it assumes that people will choose not to use the pool and either find an alternative pool or not go swimming.

A number of sensitivities have been calculated:

Capacity - this is the theoretical pool area to meet the demand for swimming based on current participation rates with the pool operating at capacity during peak time. This does not allow for the comfort factor (this is the basis on which previous models (FPM and MtF) have been calculated)

Standard - this identifies the potential demand for swimming provision and assumes that all barriers to participation are removed. This includes an allowance for a comfort factor and equates to the Sport England Facility Calculator

Game Plan - this assumes that the targets in Game Plan are achieved (50% participation in 2010 and 70% in 2020) with swimming increasing proportionately to the increase in participation. This allows for the comfort factor and assumes pools will operate on average at 70% peak time capacity.

Total Peak Visits

Age group	Peak visits (63%)	Comfort Capacity (70%)	Game Plan 2010
0-15	4665	6664	8064
16-24	1872	2675	3237
25-39	5818	8312	10057
40-59	4088	5840	7066
60-79	1455	2079	2516
Total	17,899	25,570	30,940

The figure of total visits during peak times is used to calculate the size of swimming pool provision needed to serve this demand at any one time. This highlights the:

- potential demand for swimming at peak times based on participation rates
- potential demand for swimming at peak times allowing for a comfort factor
- potential demand for swimming at peak times if the targets in Game Plan are achieved

Dividing the total peak visits by the number of peak sessions(49) divide by the water area required by one person (6m² of pool area). The total demand from the catchment area, measured in square metres of pool.

Capacity	Standard	Game Plan 2010
365	522	631
6	6	6
2192	3131	3789

Water area required to meet potential demand/m², in 2001 :
 The corresponding demand in 2005 will be :
 The corresponding demand in 2010 will be :

Capacity	Comfort	Game Plan 2010
2192	3131	
2234	3192	
2276	3251	3934

Pool Units Required in 2001:	10.3	14.8	
Pool Units Required in 2005:	10.5	15.1	
Pool Units Required in 2010:	10.7	15.3	
Pool Units Required in 2010 (Game Plan adjusted):			18.6

A pool unit is equal to: 212 m² or a 4 lane 25 metre pool

MtF Demand Model - Swimming Pool - PART B - MODEL RUNS

Target Area: Spelthorne District and 3 km Buffer

Target Site: N / A



The total demand (calculated in the pool demand sheet) is then compared to the supply of pool area within the catchment area. There are three scenarios considered:

(1). **Present situation.** In the year 2001 the existing pool area available is compared to the corresponding estimated demand.

Using projected demand in the year 2010 and population projections to estimate any change in demand, the situation in 2010 is estimated. It is assessed under two conditions.

(2). **Worst Case Scenario.** Assumes that all current planning applications will come to fruition.

(3). **Most Likely Scenario.** Assumes that only the projects that are currently underway (have gained planning permission) will eventually be completed.

The Three Scenarios

1. Present Situation			Year 2001	
Using the 2001 Census population projections, and only those facilities that are presently built				
Existing Sites	Supply in Year 2001		Demand in Year 2001	
	Public LCs	8	= 3,131	
	Dual Use	5		
	Club Use	2		
	Total	15		
Existing pool area (m ²)	Public LCs	2,396	There is an unmet demand equivalent to 98 sqm	
	Dual Use	637		
	Club Use	0		
	Total	3033		

2. Worst Case Scenario (Do everything)			Year 2010	
Using population projection to the year 2010, and assumes all planned developments come to fruition				
Existing Sites	Supply in Year 2010		Demand in Year 2010	
	Public LCs	8	= 3,251	
	Dual Use	5		
	Club Use	2		
Planned Sites	Public LCs	3		
	Dual Use	0		
	Club Use	0		
Total Sites	Total	18	There is an unmet demand equivalent to 218 sqm	
Existing pool area (m ²)	Public LCs	2,396		
	Dual Use	637		
	Club Use	0		
Planned pool area (m ²)	Public LCs	0		
	Dual Use	0		
	Club Use	0		
	Total	3033		

3. Most Likely Scenario (Do something)			Year 2010	
Using population projection to the year 2010, and only planned developments where building work has started on site.				
Existing Sites	Supply in Year 2010		Demand in Year 2010	Demand in Year 2010
	Public LCs	8	= 3,251	= 3,934
	Dual Use	5		(Game Plan Adjusted)
	Club Use	2		
Planned Sites	Public LCs	3	There is an unmet demand equivalent to 218 sqm	
	Dual Use	0		
	Club Use	0		
Total Sites	Total	18	Unmet Demand (Game Plan Adjusted) 901 sqm	
Existing pool area (m ²)	Public LCs	2,396		
	Dual Use	637		
	Club Use	0		
Planned pool area (m ²)	Public LCs	0		
	Dual Use	0		
	Club Use	0		
	Total	3033		

Notes:

Public LCs - Public leisure centres with unrestricted public access

Dual Use - Leisure centres that only allow public access during out of school hours and holidays. Supply has been reduced by 25% to reflect this.

Club Use - Facilities that can only be hired out as a whole, to clubs and associations, usually on a block booking system. Such facilities do not provide staff or any other support. These facilities are therefore not included in the model.

MtF Demand Model - Sports Halls - PART A - DEMAND SIDE

Target Area: **Spelthorne District and 3 km Buffer**

Target Site: **N / A**



Any model is based on a number of assumptions. The assumptions used in this model are as follows:

Assumptions/Parameters used in Model:

Source: 2004 Sport England

- Proportion of visits during peak times = 60%
- Average duration of visit = 1 hour
- Normal peak periods = 40.5 hours per week
- At one time capacity = 5 people per badminton court

These assumptions are then applied to the population (classified by age and gender) of the target area. Calculated Sport England demand parameters for each category of age and gender are also applied (see the following table).

Demand Assessment Table

Demand in relation to the age and gender profile of the target area is calculated by applying Sport England demand parameters to it.

Age Group	Population		Rate of Participation (%)		Participation Nr's		Frequency of participation (per week)		Visits per week		Peak Visits
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	(60%)
0-15	31,312	29,739	9.55	6.03	2990	1793	0.85	0.99	2542	1775	2590
16-24	15,110	14,453	15.04	9.31	2273	1346	0.88	0.85	2000	1144	1886
25-34	22,654	24,468	14.96	11.66	3389	2853	0.88	1.03	2982	2939	3553
35-44	24,915	24,954	11.08	9.40	2761	2346	0.90	0.90	2485	2111	2757
45-59	29,126	28,942	5.68	5.40	1654	1563	0.92	1.02	1522	1594	1870
60-79	22,777	25,929	5.55	4.28	1264	1110	1.10	1.27	1391	1409	1680
Total	145,894	148,485							12,921	10,972	14,336

Quantifying Demand

The figure of total visits during peak times is used to calculate the size of a sports hall needed to serve this demand at any one time.

This is calculated by :

- dividing the total peak visits by the number of peak sessions (40.5) :
- divide this number by the average number of people that play on a badminton court (5) :
- allow for the comfort capacity at 80% of peak time usage

This leaves one number signifying the total demand from the catchment area, measured in badminton courts.

Standard
354
5
80%
88.5

Current

No of badminton courts demand in 2001 **88.5** courts
 The corresponding demand in 2005 will be: **90.2** courts
 The corresponding demand in 2010 will be: **91.9** courts

Number of four court sports halls required in 2001 is: 22.1
 Number of four court sports halls required in 2005 is: 22.6
 Number of four court sports halls required in 2010 is: 23.0

Note: Demand will change over time in relation to the increase or decrease in resident population.

Demand Sensitivities

The model calculates the total potential demand for sports halls and assumes that each hall will operate on average at 80% peak time capacity to provide comfort for users and allow for a balanced programme providing different types of activity. Once this 80% capacity has been exceeded it assumes that people will choose not to use the hall and either find an alternative hall or not participate in activity.

A number of sensitivities have been calculated:

Capacity - this is the theoretical sports hall area to meet the demand for hall based activities based on current participation rates with the hall operating at capacity during peak times. This does not allow for the comfort factor (this is the basis on which previous models (FPM and MtF) have been calculated).

Standard - this identifies the potential demand for sports hall provision and assumes that all barriers to participation are removed. This includes an allowance for a comfort factor and equates to the Sport England Facility Calculator.

Game Plan - this assumes that the targets in Game Plan are achieved (50% participation in 2010 and 70% in 2020) with sports hall activities increasing proportionately to the increase in participation. This allows for the comfort factor and assumes halls will operate on average at 75% peak time capacity.

Total Peak Visits

Age group	Peak visits (60%)	Comfort Capacity (80%)	Game Plan 2010
0-15	2590	3238	3918
16-24	1886	2358	2853
25-34	3553	4441	5373
34-44	2757	3447	4171
45-59	1870	2337	2828
60-79	1680	2100	2541
Total	14,336	17,920	21,683

The figure of total visits during peak times is used to calculate the size of sports hall provision needed to serve this demand at any one time. This highlights the:

- potential demand for sports halls at peak times based on participation rates
- potential demand for sports hall at peak times allowing for a comfort factor
- potential demand for sports halls at peak times if the targets in Game Plan are achieved

Dividing the total peak visits by the number of peak sessions(40.5)
divide this number by the average number of people that play on a badminton court (5) :
The total demand from the catchment area, measured in badminton courts.

Capacity	Standard	Game Plan 2010
354	442	535
5	5	5
71	88	107

No of badminton courts demand in 2001
The corresponding demand in 2005 will be:
The corresponding demand in 2010 will be:

Capacity	Standard	Game Plan 2010
71	88	
72	90	
74	92	111

Number of four court sports halls required in 2001 is:
Number of four court sports halls required in 2005 is:
Number of four court sports halls required in 2010 is:

17.7	22.1	
18.0	22.6	
18.4	23.0	27.8

MtF Demand Model - Sports Halls - PART B - MODEL RUNS



Target Area: Spelthorne District and 3 km Buffer

Target Site: N / A

The total demand (calculated in the hall demand sheet) is then compared to the supply of sports halls within the catchment area. There are three scenarios considered:

(1) **Present situation.** In the year 2001 the existing sports halls available are compared to the corresponding estimated demand.

Using projected demand in the year 2010 and population projections to estimate any change in demand, the situation in 2010 is estimated. It is assessed under two conditions.

(2) **Worst Case Scenario.** Assumes that all current planning applications will come to fruition.

(3) **Most Likely Scenario.** Assumes that only the projects that are currently underway (have gained planning permission) will eventually be completed.

1. Present Situation			Year 2001	
Using population projections to the year 2000, and only those facilities that are presently built.				
Existing Sites	Supply in Year 2001		Demand in Year 2001	
	Public LCs	9	= 88	
	Dual Use	9		
	Club Use	2		
Total	20			
Existing badminton courts	Public LCs	33	There is an unmet demand equivalent to 31 courts	
	Dual Use	24.25		
	Club Use	0		
	Total	57.25		

2. Worst Case Scenario (Do everything)			Year 2010	
Using population projection to the year 2010, and assumes all planned developments come to fruition				
Existing Sites	Supply in Year 2010		Demand in Year 2010	
	Public LCs	9	= 92	
	Dual Use	9		
	Club Use	2		
Total	23			
Planned Sites	Public LCs	1	There is an unmet demand equivalent to 29 courts	
	Dual Use	2		
	Club Use	0		
Total Sites	Public LCs	33	There is an unmet demand equivalent to 29 courts	
	Dual Use	24.25		
	Club Use	0		
	Total	63.25		
Existing badminton courts	Public LCs	3	There is an unmet demand equivalent to 29 courts	
	Dual Use	3		
	Club Use	0		
Planned badminton courts	Public LCs	3	Unmet Demand (Game Pan Adjusted) 29 courts	
	Dual Use	3		
	Club Use	0		
Total Sites	Public LCs	33	Unmet Demand (Game Pan Adjusted) 29 courts	
	Dual Use	24.25		
	Club Use	0		
	Total	63.25		

3. Most Likely Scenario (Do something)			Year 2010	
Using population projection to the year 2010, and only planned developments where building work has started on site.				
Existing Sites	Supply in Year 2010		Demand in Year 2010	
	Public LCs	9	= 92	
	Dual Use	9		
	Club Use	2		
Total	20			
Planned Sites	Public LCs	0	= 92 (Game Plan Adjusted)	
	Dual Use	0		
	Club Use	0		
Total Sites	Public LCs	33	There is an unmet demand equivalent to 29 courts	
	Dual Use	24.25		
	Club Use	0		
	Total	63.25		
Existing badminton courts	Public LCs	3	Unmet Demand (Game Pan Adjusted) 29 courts	
	Dual Use	3		
	Club Use	0		
Planned badminton courts	Public LCs	3	Unmet Demand (Game Pan Adjusted) 29 courts	
	Dual Use	3		
	Club Use	0		
Total Sites	Public LCs	33	Unmet Demand (Game Pan Adjusted) 29 courts	
	Dual Use	24.25		
	Club Use	0		
	Total	63.25		

- Notes:
- Public LCs - Public leisure centres with unrestricted public access
 - Dual Use - Leisure centres that only allow public access during out of school hours and holidays. Supply has been reduced by 25% to reflect this.
 - Club Use - Facilities that can only be hired out as a whole, to clubs and associations, usually on a block booking system. Such facilities do not provide staff or any other support. These facilities are therefore not included in the model.

MtF Demand Model - Synthetic Turf Pitches (STPs)



Unlike sports halls and swimming pools there are no detailed demand parameters. The most comprehensive parameter is a normative parameter which is the following:

"One STP for every 60,000 people within a 20 minute off-peak drivetime"

Source: 1999 Sport England

The following table shows the adult population within a 20 minute off-peak drivetime from the target site. The last column details the number of STPs that are thus required.

Demand Assessment Table

Year	Total Population	No. of STPs Required
2001	297,318	5.0
2005	312,421	5.2
2010	318,232	5.3

The number of STPs that are required is then compared to the number that exist. STPs should be full sized and be floodlit to be counted in this analysis.

Supply of STPs

Catchment area is: Spelthorne District and 3 km Buffer

No. of STPs (full size, floodlit) in operation : 4.5
 No. of STPs (full size, floodlit), currently being built : 0
 No. of STPs (full size, floodlit) planned : 0

1. Present Situation	Year 2001
<p>No. of STPs existing: 4.5 No of STPs required: 5.0</p> <p style="text-align: right;">There is an unmet demand equivalent to 0.5 pitches</p>	

2. Worst Case Scenario (Do everything)	Year 2010
<p>No. of STPs existing: 4.5 No. of STPs being built: 0 No of STPs required: 5.3</p> <p style="text-align: right;">There is an unmet demand equivalent to 0.8 pitches</p>	

3. Most Likely Scenario (Do something)	Year 2010
<p>No. of STPs existing: 4.5 No. of STPs being built: 0 No. of planned STPs: 0 No of STPs required: 5.3</p> <p style="text-align: right;">There is an unmet demand equivalent to 0.8 pitches</p>	

This figure is a national standard and relates to hockey and multi purpose activities. Consideration should be given to the number of locally based teams, demand for football and relevant playing pitch strategy.

The demand for an STP should be based on local demand and local term sustainability.

MtF Demand Model - Health and Fitness - PART A - DEMAND SIDE

FORECAST

Target Area: **Spelthorne District and 3 km Buffer**

Target Site: **N / A**



Generic Assumptions Used in the Model

- The model defines health and fitness users as all people participating in health and fitness, including private club members, users of local authority facilities, home users.
- The model is based on the premise that for the supply to be sufficient, it must be large enough to cater for the maximum demand at any one time. Maximum demand is described as the demand during a peak hour/session.
- Penetration of health and fitness users is defined using results from MtF's Sport and Leisure Potential Report. This report is derived from a representative sample of nearly 1 million people who completed a survey, a significant number of which reside within the target area. The penetration rate is therefore dependent upon the character of people in the target catchment area. A figure of 19.7% penetration was attained for GB as a whole. This is a current figure and does not take into account market trends in health and fitness.
- A reduction of 10% in the demand for stations is assumed to represent the proportion of health and fitness users who do not use gyms, including 'home' users, etc. The reduction is subtracted at the end of the model calculations.

Parameters Used in the Model

- A potential penetration rate of 23.5% will be used. This figure was obtained from the Sport and Leisure Potential Report for this target area. It includes **all** health and fitness users (from home gym users to members of private health and fitness clubs)
- The average health and fitness session is one hour
- 65% of use is during peak times
- Peak times are 5-9pm Monday to Friday and 9am-5pm weekends (36 hours in a week).
- The average user participates on average 1.5 times per week or six times a month.
- The at one time capacity of a health and fitness facility is calculated by the ratio of one user per station.

The Calculations Used to Calculate Demand (2001)

Total Adult Population = 235,082

Number of Potential members/users of health and fitness clubs = 23.5% of total adults = 55,244

Number of visits per week = potential members/users * 1.5 = 82,866

Number of visits per week in peak times = 65% of total number of visits = 53,863

Number of visits in one hour of peak time = total visits during peak times / 36 = 1,497

Reduce figure by 10% to account for non gym users = 1,347

A total number of 1,347 stations would be required to cater for the predicted demand by potential members/users of any health and fitness facility.

Quantifying Demand - demand changes over time as a result of changes in resident population.

In 2001 there will be a demand for : 1,347 stations

In 2005 there will be a demand for : 1,374 stations

In 2010 there will be a demand for : 1,399 stations

NB. Market trends have not been considered at this stage.

MtF Demand Model - Health and Fitness - PART B - MODEL RUNS

Target Area: Spelthorne District and 3 km Buffer

Target Site: N / A



The total demand (calculated in the demand sheet) is then compared to the supply of stations within the catchment area. There are three scenarios considered:

(1). **Present situation.** In the year 2001 the existing stations available are compared to the corresponding estimated demand.

Using projected demand in the year 2010 and population projections to estimate any change in demand, the situation in 2010 is estimated. It is assessed under two conditions.

(2). **Worst Case Scenario.** Assumes that all current planning applications will come to fruition

(3). **Most Likely Scenario.** Assumes that only the projects that are currently underway (have gained planning permission) will eventually be completed.

1. Present Situation		Year 2001	
Using population projections to the year 2000, and only those facilities that are presently built.			
Year 2001 Existing Sites	Supply in Year 2001		Demand in Year 2001 = 1,347
	Public	13	
	Private	28	
Existing Stations	Total 41		There is an over supply equivalent to 699 stations
	Public	550	
	Private	1496	
Total 2046			

2. Worst Case Scenario (Do everything)		Year 2010	
Using population projection to the year 2010, and all planned developments come to fruition			
Year 2010 Existing Sites	Supply in Year 2010		Demand in Year 2010 = 1,399
	Public	13	
	Private	28	
	Planned	7	
No of Stations	Total 48		There is an over supply equivalent to 940 stations
	Public	550	
	Private	1496	
	Planned	293	
Total 2339			

3. Most Likely Scenario (Do something)		Year 2010	
Using population projection to the year 2010, and only planned developments which are looking favourable come to fruition			
Year 2010 Existing Sites	Supply in Year 2010		Demand in Year 2010 = 1,399
	Public	13	
	Private	28	
	Planned	7	
No of Stations	Total 48		There is an over supply equivalent to 940 stations
	Public	550	
	Private	1496	
	Planned	293	
Total 2339			

Notes: No assumptions/consideration has been made regarding the quality of facilities. It is assumed that although private clubs require a membership fee to be paid before joining, no reduction in accessibility to the facility results. Similarly, the standard requirement in public facilities to undertake an induction before using the facility also has no impact on accessibility.

Demographic Profile - 2001 Census



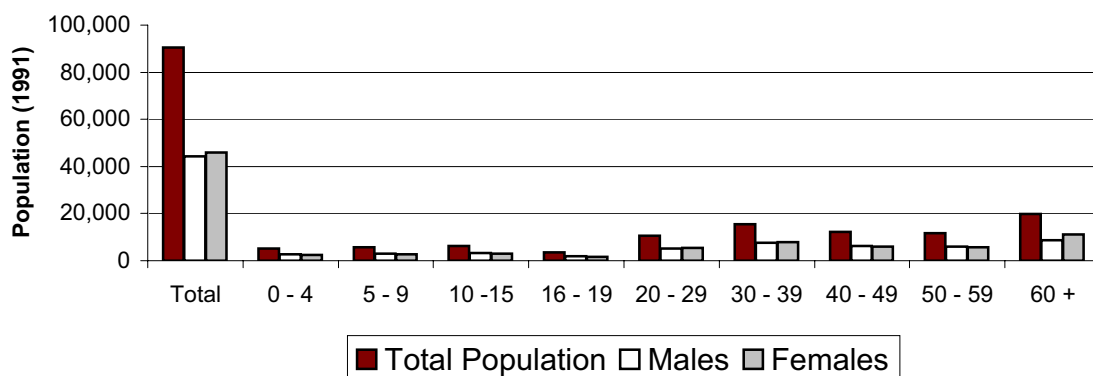
Report for : PMP
 Defined Area: Spelthorne District
 Postcode: N / A

	Results from area	Results as % of area	Results as % of England & Wales	Results as % of GB	From GB % Index (ave. =100)	Index difference	From England & Wales % Index (ave. =100)	Index difference
Total Population	90,357	100	100.0	100	100	0	100	0
0 - 4	5,148	5.7	6.0	5.7	100	-0	96	-4
5 - 9	5,662	6.3	6.4	6.2	101	1	99	-1
10 -15	6,289	7.0	7.8	7.8	90	-10	89	-11
16 - 19	3,535	3.9	4.9	4.9	79	-21	80	-20
20 - 29	10,596	11.7	12.7	12.6	93	-7	93	-7
30 - 39	15,402	17.0	15.6	15.6	110	10	109	9
40 - 49	12,348	13.7	13.4	13.8	99	-1	102	2
50 - 59	11,621	12.9	12.6	12.6	102	2	102	2
60 +	19,756	21.9	20.8	20.9	105	5	105	5
Males								
Total	44,399	49.1	48.7	48.4	102	2	101	1
0 - 4	2,626	2.9	3.0	2.9	99	-1	95	-5
5 - 9	2,950	3.3	3.3	3.2	103	3	100	0
10 -15	3,260	3.6	4.0	4.0	91	-9	90	-10
16 - 19	1,874	2.1	2.5	2.5	83	-17	83	-17
20 - 29	5,253	5.8	6.3	6.2	94	-6	93	-7
30 - 39	7,531	8.3	7.7	7.6	110	10	109	9
40 - 49	6,293	7.0	6.6	6.8	103	3	105	5
50 - 59	5,879	6.5	6.2	6.2	105	5	105	5
60 +	8,733	9.7	9.1	9.0	108	8	107	7
Females								
Total	45,958	50.9	51.3	51.6	99	-1	99	-1
0 - 4	2,522	2.8	2.9	2.8	100	0	96	-4
5 - 9	2,712	3.0	3.1	3.0	99	-1	97	-3
10 -15	3,029	3.4	3.8	3.8	89	-11	88	-12
16 - 19	1,661	1.8	2.4	2.4	76	-24	77	-23
20 - 29	5,343	5.9	6.4	6.4	93	-7	92	-8
30 - 39	7,871	8.7	7.9	8.0	109	9	110	10
40 - 49	6,055	6.7	6.7	7.0	96	-4	99	-1
50 - 59	5,742	6.4	6.3	6.4	100	-0	100	0
60 +	11,023	12.2	11.7	11.9	102	2	104	4
Ethnic Origin								
All White	85,326	94.4	90.9	0.0	N/A	N/A	104	4
White - British	81,130	89.8	87.0	0.0	N/A	N/A	103	3
White - Irish	1,570	1.7	1.3	0.0	N/A	N/A	137	37
White - Other	2,626	2.9	2.7	0.0	N/A	N/A	109	9
All Black	518	0.6	2.3	0.0	N/A	N/A	25	-75
Black - Caribbean	237	0.3	1.1	0.0	N/A	N/A	23	-77
Black - African	215	0.2	1.0	0.0	N/A	N/A	25	-75
Black - Other	66	0.1	0.2	0.0	N/A	N/A	38	-62
Chinese	373	0.4	0.4	0.0	N/A	N/A	92	-8

	Results from area	Results as % of area	Results as % of England & Wales	Results as % of GB	From GB % Index (ave. =100)	From GB % Index difference	From England & Wales % Index (ave. =100)	From England & Wales % Index difference
Ethnic Origin contd								
All Asian	2,529	2.8	4.6	0.0	N/A	N/A	61	-39
Asian - Indian	1,794	2.0	2.1	0.0	N/A	N/A	95	-5
Asian - Pakistani	278	0.3	1.4	0.0	N/A	N/A	21	-79
Asian - Bangladeshi	121	0.1	0.6	0.0	N/A	N/A	24	-76
Asian - Other	336	0.4	0.5	0.0	N/A	N/A	77	-23
Others	495	0.5	0.4	0.0	N/A	N/A	125	25
All Mixed	1,197	1.3	1.3	0.0	N/A	N/A	101	1
White and Black Caribbean	278	0.3	0.5	0.0	N/A	N/A	65	-35
White and Black African	91	0.1	0.2	0.0	N/A	N/A	65	-35
Mixed - White and Asian	533	0.6	0.4	0.0	N/A	N/A	157	57
Mixed - Others	295	0.3	0.3	0.0	N/A	N/A	106	6
Residents who have a limiting long-term illness	12,455	13.8	17.0	17.5	79	-21	81	-19
Economic Activity of Household Residents (aged 16 and over)								
Total	73,312	[total of all economic sub-types]						
In Full-time employment	36,780	50.2	39.0	40.5	124	24	129	29
In Part-time employment	10,144	13.8	12.8	13.1	105	5	108	8
Self employed	5,765	7.9	5.2	5.7	139	39	150	50
Unemployed	1,329	1.8	2.5	3.0	59	-41	74	-26
Students	2,776	3.8	18.3	12.5	30	-70	21	-79
Permanently Sick/Disabled	1,860	2.5	4.3	5.6	45	-55	58	-42
Retired	9,497	13.0	9.9	11.3	114	14	131	31
Other inactive	1,415	1.9	2.5	3.1	63	-37	76	-24
Looking after home/family	3,746	5.1	5.3	5.2	98	-2	96	-4
Males								
In Full-time employment	23,380	31.9	25.3	26.0	123	23	126	26
In Part-time employment	2,087	2.8	2.7	2.7	106	6	105	5
Self employed	4,288	5.8	3.8	4.1	143	43	154	54
Unemployed	817	1.1	1.5	1.9	58	-42	75	-25
Students	1,369	1.9	9.2	6.1	31	-69	20	-80
Permanently Sick/Disabled	970	1.3	2.4	3.0	44	-56	56	-44
Retired	4,069	5.6	4.0	4.5	122	22	139	39
Other inactive	638	0.9	1.1	1.3	66	-34	79	-21
Looking after home/family	166	0.2	0.4	0.4	58	-42	62	-38
Female								
In Full-time employment	13,400	18.3	13.7	14.5	126	26	134	34
In Part-time employment	8,057	11.0	10.1	10.5	105	5	109	9
Self employed	1,477	2.0	1.5	1.6	128	28	134	34
Unemployed	512	0.7	1.0	1.1	63	-37	72	-28
Students	1,407	1.9	9.4	6.5	29	-71	20	-80
Permanently Sick/Disabled	890	1.2	2.0	2.6	47	-53	61	-39
Retired	5,428	7.4	6.2	6.9	107	7	119	19
Other inactive	777	1.1	1.4	1.7	61	-39	73	-27
Looking after home/family	3,580	4.9	5.0	4.8	102	2	98	-2
Lone Parents								
Total	73,258	[Total of All People aged 16+]						
Male	3,394	4.6	5.6	6.0	77	-23	82	-18
Female	574	0.8	0.8	0.8	98	-2	101	1
	2,820	3.8	4.9	5.2	74	-26	79	-21

	Results from area	Results as % of area	Results as % of England & Wales	Results as % of GB	From GB % Index (ave. =100)	From GB % Index difference	From England & Wales % Index (ave. =100)	From England & Wales % Index difference
Tenure of Households								
Total Occupied Household Spaces	38,452							
Owned	30,363	79.0	68.7	65.7	120	20	115	15
Private Rented or Living Rent Free	3,525	9.2	12.0	11.2	82	-18	76	-24
Rented from Council	638	1.7	13.2	17.4	10	-90	13	-87
Other Social Rented	3,926	10.2	6.1	5.8	176	76	169	69
Car Availability by Household								
with no car	5,864	15.3	26.8	30.5	50	-50	57	-43
with 1 car	16,690	43.4	43.7	43.5	100	-0	99	-1
with 2 cars	15,801	41.1	29.5	26.0	158	58	139	39
Social Class of Head of Household								
Total Head of Household (aged 16+)	72,532							
AB - Higher & Intermediate managerial/admin/professional	18,640	25.7	22.2	20.6	125	25	116	16
- Supervisory, clerical, junior C2 - Skilled manual workers	25,840	35.6	29.7	28.1	127	27	120	20
D - Semi-skilled & unskilled manual workers	9,853	13.6	15.1	14.8	92	-8	90	-10
E - On state benefit, unemployed, lowest grade	8,766	12.1	17.0	17.3	70	-30	71	-29
	9,433	13.0	16.0	19.2	68	-32	81	-19

Graph to illustrate population by age and gender.



Population Projection Report

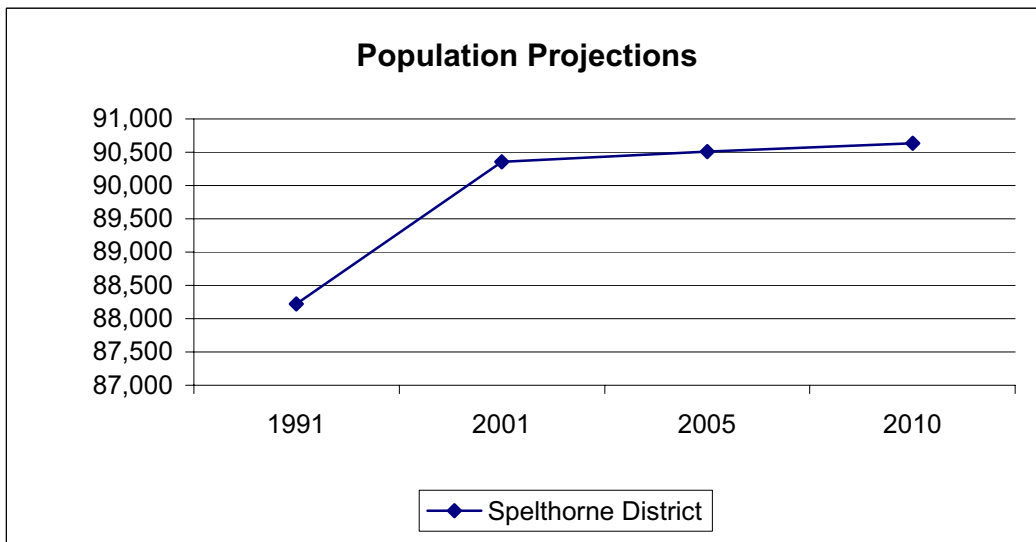


Report for : PMP
Defined Area: Spelthorne District
Postcode: N / A

Data Table:

	Population
1991	88,218
2001	90,357
2005	90,509
2010	90,638

Population Projections	1991-2000	2001-2005	2001-2010
Spelthorne District	2.4%	0.2%	0.3%
Actual Total Change	2,139	152	281



Source: 1996 Sub-National Projections. Reproduced by permission of the Office of National Statistics.

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Note: Some variations may occur in projections due to the changes in postal geography.

MtF Demand Model - Swimming Pools - PART A - DEMAND SIDE

Target Area: **Spelthorne District**

Target Site: **N / A**



Any model is based on a number of assumptions. The assumptions used in this model are as follows:

Assumptions/Parameters used in Mode

Source: 2004 Sport England

- Proportion of visits during peak times = 63%
- Average duration of visit = 64 minutes (tank), 68 minutes (leisure pool)
- Normal peak periods = 52 hours per week = 49 peak sessions
- At one time capacity = 6m² per person
A one time capacity is defined as the supply/capacity of one m² of pool area at any one time
- Capacity per 212m² (1 pool unit) = 35 people. (number of metres squared divided by the at one time capacity of one m²)
A pool unit is defined as an average four lane, 25 metre pool.

These assumptions are then applied to the population (classified by age and gender) of the target area. Calculated Sport England demand parameters for each category of age and gender are also applied (see the following table).

Demand Assessment Table

Demand in relation to the age and gender profile of the target area is calculated by applying the Sport England parameters to it.

Age group	Population		Rate of participation (%)		Participation numbers		Frequency of participation (per week)		Visits per week		Peak visits (63%)
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
0-15	8,836	8,263	13.23	12.72	1169	1051	0.92	0.95	1075	999	1307
16-24	4,195	4,011	10.86	14.51	456	582	0.84	0.76	383	442	520
25-39	10,463	10,864	13.73	18.89	1437	2052	0.71	0.79	1020	1621	1664
40-59	12,172	11,797	8.13	10.44	990	1232	0.94	0.81	930	998	1215
60-79	7,524	8,602	3.93	4.52	296	389	1.18	1.07	349	416	482
Total	43,190	43,537			4,346	5,306			3,757	4,476	5,187

Quantifying Demand

The figure of total visits during peak times is used to calculate the size of a swimming pool needed to serve this demand at any one time.

This is calculated by:

- dividing the total peak visits by the number of peak sessions(49)
- divide by the water area required by one person (6m² of pool area).
- allow for the comfort capacity at 70% of peak time usage

This leaves one number signifying the total demand from the catchment area, measured in square metres of pool.

Standard
106
6
70%
907

Standard
Water area required to meet potential demand/m², in 2001 : **907** m²
 The corresponding demand in 2005 will be : **909** m²
 The corresponding demand in 2010 will be : **910** m²

Pool Units Required in 2001: **4.3**
Pool Units Required in 2005: **4.3**
Pool Units Required in 2010: **4.3** A pool unit is equal to: 212 m² or a 4 lane 25 metre pool

Note: Demand will change over time in relation to the increase or decrease in resident population

Demand Sensitivities

The model calculates the total potential demand for swimming and assumes that each pool will operate on average at 70% peak time capacity to provide comfort for users. Once this 70% capacity has been exceeded it assumes that people will choose not to use the pool and either find an alternative pool or not go swimming.

A number of sensitivities have been calculated:

Capacity - this is the theoretical pool area to meet the demand for swimming based on current participation rates with the pool operating at capacity during peak time. This does not allow for the comfort factor (this is the basis on which previous models (FPM and MtF) have been calculated)

Standard - this identifies the potential demand for swimming provision and assumes that all barriers to participation are removed. This includes an allowance for a comfort factor and equates to the Sport England Facility Calculator

Game Plan - this assumes that the targets in Game Plan are achieved (50% participation in 2010 and 70% in 2020) with swimming increasing proportionately to the increase in participation. This allows for the comfort factor and assumes pools will operate on average at 70% peak time capacity.

Total Peak Visits

Age group	Peak visits (63%)	Comfort Capacity (70%)	Game Plan 2010
0-15	1307	1867	2259
16-24	520	743	898
25-39	1664	2377	2876
40-59	1215	1735	2099
60-79	482	688	833
Total	5,187	7,410	8,966

The figure of total visits during peak times is used to calculate the size of swimming pool provision needed to serve this demand at any one time. This highlights the:

- potential demand for swimming at peak times based on participation rates
- potential demand for swimming at peak times allowing for a comfort factor
- potential demand for swimming at peak times if the targets in Game Plan are achieved

Dividing the total peak visits by the number of peak sessions(49) divide by the water area required by one person (6m² of pool area). The total demand from the catchment area, measured in square metres of pool.

Capacity	Standard	Game Plan 2010
106	151	183
6	6	6
635	907	1098

Water area required to meet potential demand/m², in 2001 :

The corresponding demand in 2005 will be :

The corresponding demand in 2010 will be :

Capacity	Comfort	Game Plan 2010
635	907	
636	909	
637	910	1101

Pool Units Required in 2001:

Pool Units Required in 2005:

Pool Units Required in 2010:

Pool Units Required in 2010 (Game Plan adjusted):

3.0	4.3	
3.0	4.3	
3.0	4.3	
		5.2

A pool unit is equal to: 212 m² or a 4 lane 25 metre pool

MtF Demand Model - Swimming Pool - PART B - MODEL RUNS



Target Area: Spelthorne District

Target Site: N / A

The total demand (calculated in the pool demand sheet) is then compared to the supply of pool area within the catchment area. There are three scenarios considered:

(1). **Present situation.** In the year 2001 the existing pool area available is compared to the corresponding estimated demand.

Using projected demand in the year 2010 and population projections to estimate any change in demand, the situation in 2010 is estimated. It is assessed under two conditions.

(2). **Worst Case Scenario.** Assumes that all current planning applications will come to fruition.

(3). **Most Likely Scenario.** Assumes that only the projects that are currently underway (have gained planning permission) will eventually be completed.

The Three Scenarios

1. Present Situation			Year 2001	
Using the 2001 Census population projections, and only those facilities that are presently built				
Existing Sites	Supply in Year 2001		Demand in Year 2001	
	Public LCs	2	= 907	
	Dual Use	0		
	Club Use	2		
	Total	4		
Existing pool area (m ²)	Public LCs	696	There is an unmet demand equivalent to 211 sqm	
	Dual Use	0		
	Club Use	0		
	Total	696		

2. Worst Case Scenario (Do everything)			Year 2010	
Using population projection to the year 2010, and assumes all planned developments come to fruition				
Existing Sites	Supply in Year 2010		Demand in Year 2010	
	Public LCs	2	= 910	
	Dual Use	0		
	Club Use	2		
Planned Sites	Public LCs	0		
	Dual Use	0		
	Club Use	0		
Total Sites	Total	4	There is an unmet demand equivalent to 214 sqm	
Existing pool area (m ²)	Public LCs	696		
	Dual Use	0		
	Club Use	0		
	Total	696		
Planned pool area (m ²)	Public LCs	0		
	Dual Use	0		
	Club Use	0		
	Total	696		

3. Most Likely Scenario (Do something)			Year 2010	
Using population projection to the year 2010, and only planned developments where building work has started on site.				
Existing Sites	Supply in Year 2010		Demand in Year 2010	Demand in Year 2010
	Public LCs	2	= 910	= 1,101
	Dual Use	0		(Game Plan Adjusted)
	Club Use	2		
Planned Sites	Public LCs	0	There is an unmet demand equivalent to 214 sqm	
	Dual Use	0		
	Club Use	0		
Total Sites	Total	4	Unmet Demand (Game Plan Adjusted) 405 sqm	
Existing pool area (m ²)	Public LCs	696		
	Dual Use	0		
	Club Use	0		
	Total	696		
Planned pool area (m ²)	Public LCs	0		
	Dual Use	0		
	Club Use	0		
	Total	696		

Notes:

Public LCs - Public leisure centres with unrestricted public access

Dual Use - Leisure centres that only allow public access during out of school hours and holidays. Supply has been reduced by 25% to reflect this.

Club Use - Facilities that can only be hired out as a whole, to clubs and associations, usually on a block booking system. Such facilities do not provide staff or any other support. These facilities are therefore not included in the model.

MtF Demand Model - Sports Halls - PART A - DEMAND SIDE

Target Area: **Spelthorne District**Target Site: **N / A**

Any model is based on a number of assumptions. The assumptions used in this model are as follows:

Assumptions/Parameters used in Model: Source: 2004 Sport England

- Proportion of visits during peak times = 60%
- Average duration of visit = 1 hour
- Normal peak periods = 40.5 hours per week
- At one time capacity = 5 people per badminton court

These assumptions are then applied to the population (classified by age and gender) of the target area. Calculated Sport England demand parameters for each category of age and gender are also applied (see the following table).

Demand Assessment Table

Demand in relation to the age and gender profile of the target area is calculated by applying Sport England demand parameters to it.

Age Group	Population		Rate of Participation (%)		Participation Nr's		Frequency of participation (per week)		Visits per week		Peak Visits
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	(60%)
0-15	8,836	8,263	9.55	6.03	844	498	0.85	0.99	717	493	726
16-24	4,195	4,011	15.04	9.31	631	373	0.88	0.85	555	317	524
25-34	6,533	6,899	14.96	11.66	977	804	0.88	1.03	860	829	1013
35-44	7,287	7,221	11.08	9.40	807	679	0.90	0.90	727	611	803
45-59	8,815	8,541	5.68	5.40	501	461	0.92	1.02	461	470	559
60-79	7,524	8,602	5.55	4.28	418	368	1.10	1.27	459	468	556
Total	43,190	43,537							3,779	3,188	4,180

Quantifying Demand

The figure of total visits during peak times is used to calculate the size of a sports hall needed to serve this demand at any one time.

- This is calculated by :
- dividing the total peak visits by the number of peak sessions (40.5) :
 - divide this number by the average number of people that play on a badminton court (5) :
 - allow for the comfort capacity at 80% of peak time usage

This leaves one number signifying the total demand from the catchment area, measured in badminton courts.

Standard
103
5
80%
25.8

Current

No of badminton courts demand in 2001 25.8 courts
 The corresponding demand in 2005 will be: **25.8** courts
 The corresponding demand in 2010 will be: **25.9** courts

Number of four court sports halls required in 2001 is: 6.5
 Number of four court sports halls required in 2005 is: 6.5
 Number of four court sports halls required in 2010 is: 6.5

Note: Demand will change over time in relation to the increase or decrease in resident population.

Demand Sensitivities

The model calculates the total potential demand for sports halls and assumes that each hall will operate on average at 80% peak time capacity to provide comfort for users and allow for a balanced programme providing different types of activity. Once this 80% capacity has been exceeded it assumes that people will choose not to use the hall and either find an alternative hall or not participate in activity.

A number of sensitivities have been calculated:

Capacity - this is the theoretical sports hall area to meet the demand for hall based activities based on current participation rates with the hall operating at capacity during peak times. This does not allow for the comfort factor (this is the basis on which previous models (FPM and MtF) have been calculated).

Standard - this identifies the potential demand for sports hall provision and assumes that all barriers to participation are removed. This includes an allowance for a comfort factor and equates to the Sport England Facility Calculator.

Game Plan - this assumes that the targets in Game Plan are achieved (50% participation in 2010 and 70% in 2020) with sports hall activities increasing proportionately to the increase in participation. This allows for the comfort factor and assumes halls will operate on average at 75% peak time capacity.

Total Peak Visits

Age group	Peak visits (60%)	Comfort Capacity (80%)	Game Plan 2010
0-15	726	908	1099
16-24	524	654	792
25-34	1013	1266	1532
34-44	803	1003	1214
45-59	559	698	845
60-79	556	695	841
Total	4,180	5,225	6,323

The figure of total visits during peak times is used to calculate the size of sports hall provision needed to serve this demand at any one time. This highlights the:

- potential demand for sports halls at peak times based on participation rates
- potential demand for sports hall at peak times allowing for a comfort factor
- potential demand for sports halls at peak times if the targets in Game Plan are achieved

Dividing the total peak visits by the number of peak sessions(40.5)
divide this number by the average number of people that play on a badminton court (5) :
The total demand from the catchment area, measured in badminton courts.

Capacity	Standard	Game Plan 2010
103	129	156
5	5	5
21	26	31

No of badminton courts demand in 2001

The corresponding demand in 2005 will be:

The corresponding demand in 2010 will be:

Capacity	Standard	Game Plan 2010
21	26	
21	26	
21	26	31

Number of four court sports halls required in 2001 is:

Number of four court sports halls required in 2005 is:

Number of four court sports halls required in 2010 is:

5.2	6.5	
5.2	6.5	
5.2	6.5	7.8

MtF Demand Model - Sports Halls - PART B - MODEL RUNS



Target Area: Spelthorne District

Target Site: N / A

The total demand (calculated in the hall demand sheet) is then compared to the supply of sports halls within the catchment area. There are three scenarios considered:

(1). **Present situation.** In the year 2001 the existing sports halls available are compared to the corresponding estimated demand.

Using projected demand in the year 2010 and population projections to estimate any change in demand, the situation in 2010 is estimated. It is assessed under two conditions.

(2). **Worst Case Scenario.** Assumes that all current planning applications will come to fruition.

(3). **Most Likely Scenario.** Assumes that only the projects that are currently underway (have gained planning permission) will eventually be completed.

1. Present Situation			Year 2001	
Using population projections to the year 2000, and only those facilities that are presently built.				
Existing Sites	Supply in Year 2001		Demand in Year 2001	
	Public LCs	4	= 26	
	Dual Use	3		
	Club Use	1		
	Total	8		
Existing badminton courts	Public LCs	14	There is an unmet demand equivalent to 8 courts	
	Dual Use	4		
	Club Use	0		
	Total	18		

2. Worst Case Scenario (Do everything)			Year 2010	
Using population projection to the year 2010, and assumes all planned developments come to fruition				
Existing Sites	Supply in Year 2010		Demand in Year 2010	
	Public LCs	4	= 26	
	Dual Use	3		
	Club Use	1		
Planned Sites	Public LCs	1		
	Dual Use	1		
	Club Use	0		
Total Sites	Total	10	There is an unmet demand equivalent to 5 courts	
Existing badminton courts	Public LCs	14		
	Dual Use	4		
	Club Use	0		
Planned badminton courts	Public LCs	3		
	Dual Use	0		
	Club Use	0		
	Total	21		

3. Most Likely Scenario (Do something)			Year 2010	
Using population projection to the year 2010, and only planned developments where building work has started on site.				
Existing Sites	Supply in Year 2010		Demand in Year 2010	
	Public LCs	4	= 26	
	Dual Use	3	There is an unmet demand equivalent to 5 courts	
	Club Use	1		
Planned Sites	Public LCs	0		
	Dual Use	0		
	Club Use	0		
Total Sites	Total	8	Unmet Demand (Game Pan Adjusted) 5 courts	
Existing badminton courts	Public LCs	14		
	Dual Use	4		
	Club Use	0		
Planned badminton courts	Public LCs	3		
	Dual Use	0		
	Club Use	0		
	Total	21		

- Notes:
- Public LCs - Public leisure centres with unrestricted public access
 - Dual Use - Leisure centres that only allow public access during out of school hours and holidays. Supply has been reduced by 25% to reflect this.
 - Club Use - Facilities that can only be hired out as a whole, to clubs and associations, usually on a block booking system. Such facilities do not provide staff or any other support. These facilities are therefore not included in the model.

MtF Demand Model - Synthetic Turf Pitches (STPs)



Unlike sports halls and swimming pools there are no detailed demand parameters. The most comprehensive parameter is a normative parameter which is the following:

"One STP for every 60,000 people within a 20 minute off-peak drivetime"

Source: 1999 Sport England

The following table shows the adult population within a 20 minute off-peak drivetime from the target site. The last column details the number of STPs that are thus required.

Demand Assessment Table

Year	Total Population	No. of STPs Required
2001	88,218	1.5
2005	90,509	1.5
2010	90,638	1.5

The number of STPs that are required is then compared to the number that exist. STPs should be full sized and be floodlit to be counted in this analysis.

Supply of STPs

Catchment area is: Spelthorne District

No. of STPs (full size, floodlit) in operation : 1.75
 No. of STPs (full size, floodlit), currently being built : 0
 No. of STPs (full size, floodlit) planned : 0

1. Present Situation	Year 2001
No. of STPs existing: 1.75 No of STPs required: 1.5	There is an over supply equivalent to 0.3 pitches

2. Worst Case Scenario (Do everything)	Year 2010
No. of STPs existing: 1.75 No. of STPs being built: 0 No of STPs required: 1.5	There is an over supply equivalent to 0.2 pitches

3. Most Likely Scenario (Do something)	Year 2010
No. of STPs existing: 1.75 No. of STPs being built: 0 No. of planned STPs: 0 No of STPs required: 1.5	There is an over supply equivalent to 0.2 pitches

This figure is a national standard and relates to hockey and multi purpose activities
 Consideration should be given to the number of locally based teams, demand for football
 and relevant playing pitch strategy.

The demand for an STP should be based on local demand and local term sustainability.

MtF Demand Model - Health and Fitness - PART A - DEMAND SIDE

FORECAST

Target Area: **Spelthorne District**

Target Site: **N / A**



Generic Assumptions Used in the Model

- The model defines health and fitness users as all people participating in health and fitness, including private club members, users of local authority facilities, home users.
- The model is based on the premise that for the supply to be sufficient, it must be large enough to cater for the maximum demand at any one time. Maximum demand is described as the demand during a peak hour/session.
- Penetration of health and fitness users is defined using results from MtF's Sport and Leisure Potential Report. This report is derived from a representative sample of nearly 1 million people who completed a survey, a significant number of which reside within the target area. The penetration rate is therefore dependent upon the character of people in the target catchment area. A figure of 19.7% penetration was attained for GB as a whole. This is a current figure and does not take into account market trends in health and fitness.
- A reduction of 10% in the demand for stations is assumed to represent the proportion of health and fitness users who do not use gyms, including 'home' users, etc. The reduction is subtracted at the end of the model calculations.

Parameters Used in the Model

- A potential penetration rate of 21.6% will be used. This figure was obtained from the Sport and Leisure Potential Report for this target area. It includes **all** health and fitness users (from home gym users to members of private health and fitness clubs)
- The average health and fitness session is one hour
- 65% of use is during peak times
- Peak times are 5-9pm Monday to Friday and 9am-5pm weekends (36 hours in a week).
- The average user participates on average 1.5 times per week or six times a month.
- The at one time capacity of a health and fitness facility is calculated by the ratio of one user per station.

The Calculations Used to Calculate Demand (2001)

Total Adult Population = 70,430

Number of Potential members/users of health and fitness clubs = 21.6% of total adults = 15,213

Number of visits per week = potential members/users * 1.5 = 22,819

Number of visits per week in peak times = 65% of total number of visits = 14,833

Number of visits in one hour of peak time = total visits during peak times / 36 = 413

Reduce figure by 10% to account for non gym users = 372

A total number of 372 stations would be required to cater for the predicted demand by potential members/users of any health and fitness facility.

Quantifying Demand - demand changes over time as a result of changes in resident population.

In 2001 there will be a demand for : 372 stations

In 2005 there will be a demand for : 372 stations

In 2010 there will be a demand for : 373 stations

NB. Market trends have not been considered at this stage.

MtF Demand Model - Health and Fitness - PART B - MODEL RUNS

Target Area: Spelthorne District

Target Site: N / A



The total demand (calculated in the demand sheet) is then compared to the supply of stations within the catchment area. There are three scenarios considered:

(1). **Present situation.** In the year 2001 the existing stations available are compared to the corresponding estimated demand.

Using projected demand in the year 2010 and population projections to estimate any change in demand, the situation in 2010 is estimated. It is assessed under two conditions.

(2). **Worst Case Scenario.** Assumes that all current planning applications will come to fruition

(3). **Most Likely Scenario.** Assumes that only the projects that are currently underway (have gained planning permission) will eventually be completed.

1. Present Situation		Year 2001	
Using population projections to the year 2000, and only those facilities that are presently built.			
Year 2001	Supply in Year 2001	Demand in Year 2001	
Existing Sites	Public 3	= 372	There is an over supply equivalent to 395 stations
	Private 8		
	Total 11		
Existing Stations	Public 154		
	Private 613		
	Total 767		

2. Worst Case Scenario (Do everything)		Year 2010	
Using population projection to the year 2010, and all planned developments come to fruition			
Year 2010	Supply in Year 2010	Demand in Year 2010	
Existing Sites	Public 3	= 373	There is an over supply equivalent to 394 stations
	Private 8		
	Planned 0		
	Total 11		
No of Stations	Public 154		
	Private 613		
	Planned 0		
	Total 767		

3. Most Likely Scenario (Do something)		Year 2010	
Using population projection to the year 2010, and only planned developments which are looking favourable come to fruition			
Year 2010	Supply in Year 2010	Demand in Year 2010	
Existing Sites	Public 3	= 373	There is an over supply equivalent to 394 stations
	Private 8		
	Planned 0		
	Total 11		
No of Stations	Public 154		
	Private 613		
	Planned 0		
	Total 767		

Notes: No assumptions/consideration has been made regarding the quality of facilities. It is assumed that although private clubs require a membership fee to be paid before joining, no reduction in accessibility to the facility results. Similarly, the standard requirement in public facilities to undertake an induction before using the facility also has no impact on accessibility.

Sport and Leisure Potential

Report For: PMP Consultancy
Defined Area: Spelthorne District & 3 km buffer
Postcode: N / A

Total Population Aged Over 18 235082

	Results from area	Results as % of area	Results as % of GB	Index (ave.=100)	Index difference
Angling	14122	6.0%	6.1%	98	-2
Cycling	40248	17.1%	14.6%	117	17
Boats And	14576	6.2%	3.8%	161	61
Fitness/Health	55328	23.5%	19.7%	120	20
Football	46905	20.0%	19.7%	101	1
Golf	37121	15.8%	12.0%	131	31
Motorcycling	10541	4.5%	4.1%	108	8
Motor Sport	24663	10.5%	9.7%	108	8
Riding	6960	3.0%	2.9%	103	3
Rowing	2623	1.1%	0.5%	239	139
Rugby	21940	9.3%	8.0%	117	17
Running/Jogging	14374	6.1%	4.9%	125	25
Scuba Diving	6809	2.9%	1.7%	173	73
Skiing	14526	6.2%	3.2%	193	93
Snooker/Pool	25672	10.9%	11.1%	98	-2
Snowboarding	2925	1.2%	0.6%	219	119
Squash	8725	3.7%	3.1%	119	19
Swimming	61078	26.0%	23.0%	113	13
Tennis	17400	7.4%	5.1%	145	45
Watersports	11953	5.1%	3.0%	169	69
No Sport	73082	31.1%	35.4%	88	-12

Demographic Profile

	Results from area	Results as % of area	Results as % of GB	Index (ave.=100)	Index difference	
Number of Children Per Household (aged under 18)						
One	32229	13.7%	13.9%	99	-1	
Two	33540	14.3%	14.9%	96	-4	
Three	10390	4.4%	4.6%	96	-4	
Four	2673	1.1%	1.0%	109	9	
Five	504	0.2%	0.2%	105	5	
Six or more	454	0.2%	0.0%	289	-111	
No Children	155292	66.1%	65.3%	101	1	
Number of Adults Per Household (aged 18 and over)						
One	31018	13.2%	11.8%	112	12	
Yachting	Two	162959	69.3%	71.4%	97	-3
Three	28395	12.1%	12.1%	100	0	
Four	10793	4.6%	4.0%	114	14	
Five	1614	0.7%	0.6%	114	14	
Six	303	0.1%	0.1%	116	16	
Seven or more	0	0.0%	0.1%	0	-300	
Social Class						
AB	97089	41.3%	30.7%	135	35	
C1	78529	33.4%	13.2%	253	153	
C2	22646	9.6%	14.8%	65	-35	
D	12811	5.4%	7.3%	75	-25	
E	24008	10.2%	15.1%	68	-32	
Cars in Household						
1 car	81404	34.6%	41.9%	83	-17	
2 cars	79437	33.8%	26.9%	126	26	
3 or more cars	18258	7.8%	5.2%	149	49	
No cars	55984	23.8%	25.0%	95	-5	
Family Income						
Less Than £5k	15080	6.4%	8.1%	79	-21	
£5-£10k	28244	12.0%	15.5%	78	-22	
£10-£15k	25016	10.6%	16.0%	67	-33	
£15-£20k	27437	11.7%	14.6%	80	-20	
£20-£25k	29656	12.6%	13.5%	93	-7	
£25-£30k	26025	11.1%	11.1%	99	-1	
£30-£40k	36112	15.4%	11.0%	140	40	
£40-£50k	21435	9.1%	5.2%	174	74	
Interest	£50-£60k	12962	5.5%	2.5%	217	117
Over £60k	13113	5.6%	2.5%	227	127	

Sport and Leisure Potential

Report For: PMP Consultancy

Defined Area: Spelthorne District

Postcode: N / A

Total Population Aged Over 18 70430

	Results from area	Results as % of area	Results as % of GB	Index (ave.=100)	Index difference
Angling	5548	7.9%	6.1%	129	29
Cycling	11507	16.3%	14.6%	112	12
Boats And	4880	6.9%	3.8%	180	80
Fitness/Health	15206	21.6%	19.7%	110	10
Football	15411	21.9%	19.7%	111	11
Golf	12021	17.1%	12.0%	142	42
Motorcycling	3288	4.7%	4.1%	112	12
Motor Sport	6627	9.4%	9.7%	97	-3
Riding	2003	2.8%	2.9%	99	-1
Rowing	771	1.1%	0.5%	235	135
Rugby	6370	9.0%	8.0%	113	13
Running/Jogging	4110	5.8%	4.9%	120	20
Scuba Diving	1901	2.7%	1.7%	161	61
Skiing	3442	4.9%	3.2%	153	53
Snooker/Pool	7757	11.0%	11.1%	99	-1
Snowboarding	873	1.2%	0.6%	218	118
Squash	2003	2.8%	3.1%	91	-9
Swimming	17672	25.1%	23.0%	109	9
Tennis	4829	6.9%	5.1%	134	34
Watersports	4932	7.0%	3.0%	232	132
No Sport	21525	30.6%	35.4%	86	-14

Demographic Profile

	Results from area	Results as % of area	Results as % of GB	Index (ave.=100)	Index difference	
Number of Children Per Household (aged under 18)						
One	8682	12.3%	13.9%	89	-11	
Two	9966	14.2%	14.9%	95	-5	
Three	3031	4.3%	4.6%	93	-7	
Four	616	0.9%	1.0%	84	-16	
Five	0	0.0%	0.2%	0	-100	
Six or more	103	0.1%	0.0%	218	-182	
No Children	48032	68.2%	65.3%	105	5	
Number of Adults Per Household (aged 18 and over)						
One	7963	11.3%	11.8%	96	-4	
Yachting	Two	49830	70.8%	71.4%	99	-1
Three	8168	11.6%	12.1%	96	-4	
Four	4110	5.8%	4.0%	145	45	
Five	360	0.5%	0.6%	85	-15	
Six	0	0.0%	0.1%	0	-100	
Seven or more	0	0.0%	0.1%	0	-300	
Social Class						
AB	29795	42.3%	30.7%	138	38	
C1	22655	32.2%	13.2%	243	143	
C2	5959	8.5%	14.8%	57	-43	
D	4623	6.6%	7.3%	90	-10	
E	7397	10.5%	15.1%	70	-30	
Cars in Household						
1 car	26456	37.6%	41.9%	90	-10	
2 cars	23785	33.8%	26.9%	125	25	
3 or more cars	5548	7.9%	5.2%	151	51	
No cars	14641	20.8%	25.0%	83	-17	
Family Income						
Less Than £5k	3801	5.4%	8.1%	66	-34	
£5-£10k	8476	12.0%	15.5%	78	-22	
£10-£15k	8682	12.3%	16.0%	77	-23	
£15-£20k	7911	11.2%	14.6%	77	-23	
£20-£25k	9709	13.8%	13.5%	102	2	
£25-£30k	7141	10.1%	11.1%	91	-9	
£30-£40k	11970	17.0%	11.0%	155	55	
£40-£50k	6986	9.9%	5.2%	189	89	
Interest	£50-£60k	2877	4.1%	2.5%	161	61
Over £60k	2877	4.1%	2.5%	166	66	