



**Draft SPD1: Planning
Obligations
Technical Note 5:
Green Infrastructure &
Recreation**

February 2011

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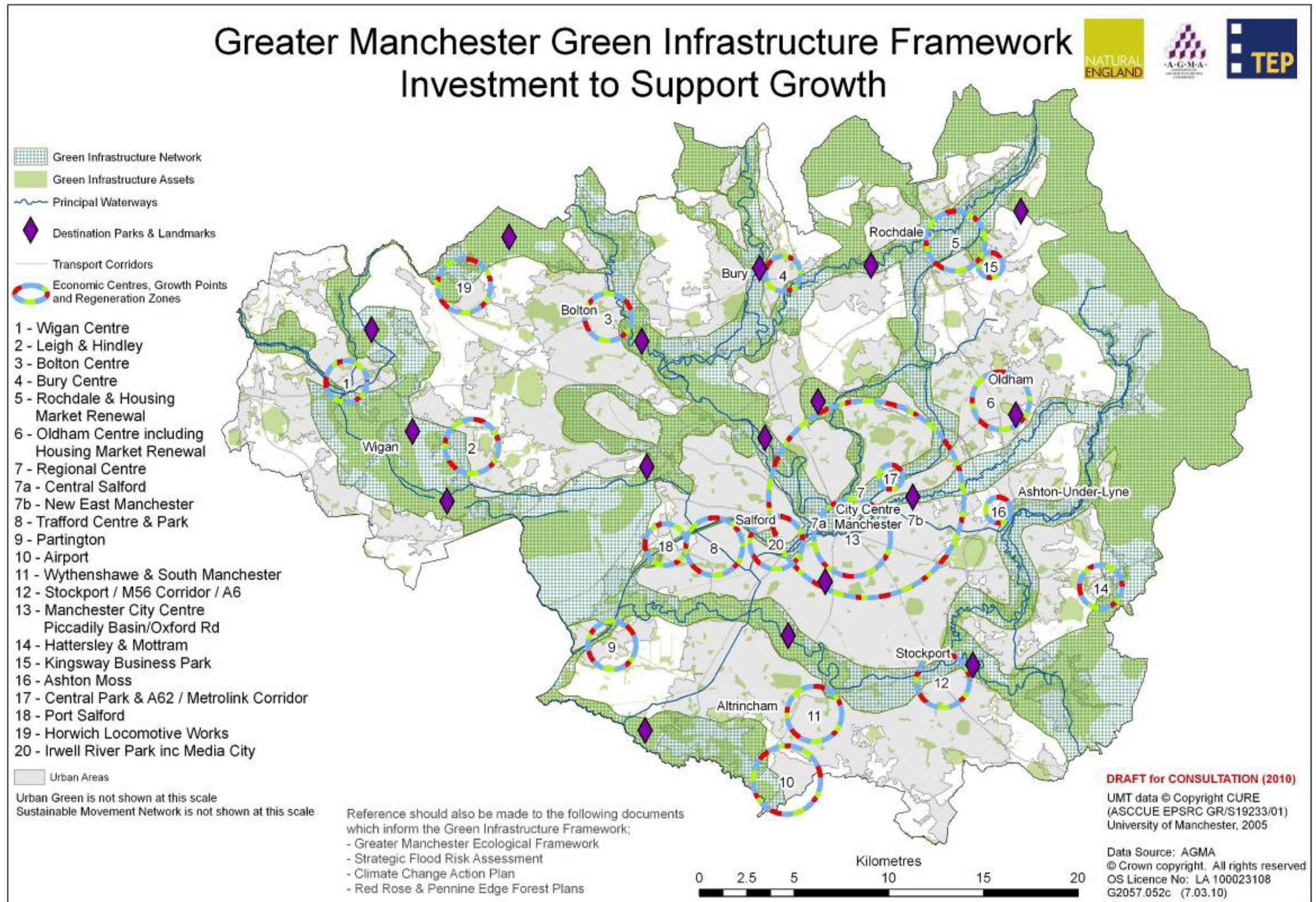
Introduction

This Technical note is intended to be read alongside the Draft Planning Obligations Supplementary Planning Document (SPD) and provides more detailed information, maps, costings and worked examples to support section 3.5 on Green Infrastructure, Open Space, Sport and Recreation.

Information is organised into sections below which are referenced in the Planning Obligations SPD. Although there is more detailed justification and evidence base work detailed, reference is also made to the specific documents which contain a much more comprehensive statement of the background to the development of standards, methodologies and priorities for improvements.

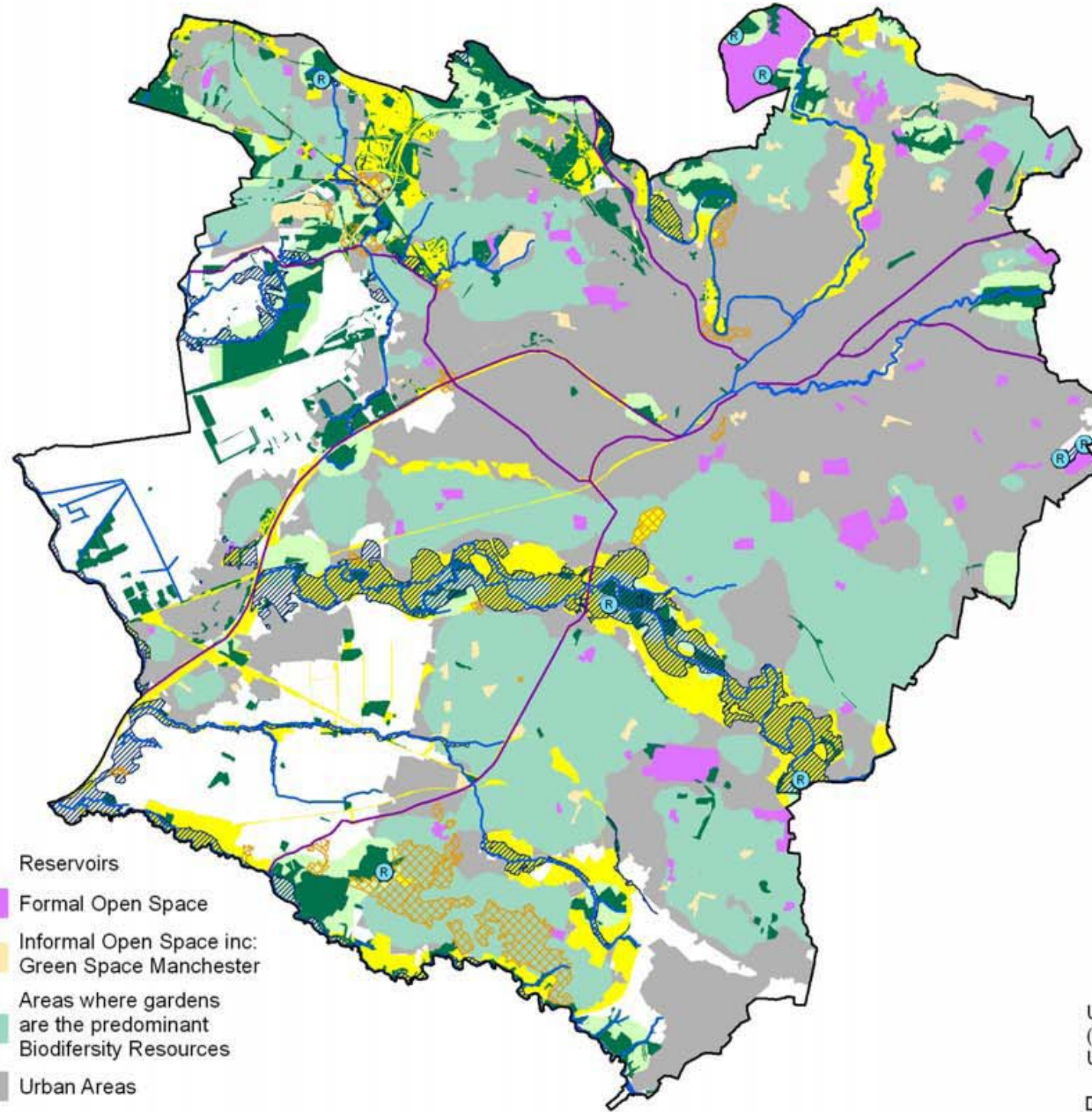
This Technical Note is a 'living document' and will be updated regularly to reflect the latest guidance and data.

A. Section A - GM Green Infrastructure Framework and Assets map for Salford, Trafford and Manchester





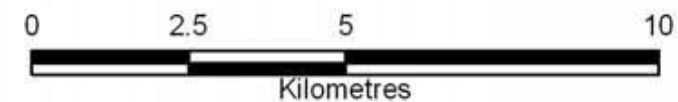
Trafford, Salford and Manchester Green Infrastructure Assets



Key

- | | |
|---|--|
|  Conservation Areas |  Reservoirs |
|  Undeveloped Land within Flood Zone 2 |  Formal Open Space |
|  Sites of Biodiversity Interest
Local Nature Reserves |  Informal Open Space inc:
Green Space Manchester |
|  Sites of Special Scientific Interest
Woodland
GM Action Plan Habitats |  Areas where gardens
are the predominant
Biodiversity Resources |
|  Most Natural Areas* |  Urban Areas |
|  Opportunities to Link
and Buffer Natural Areas* |  Main Rivers |
|  Wildlife Corridors |  Canals |

* Greater Manchester Ecology Unit (GMEU)
‘An Ecological Framework for Greater Manchester’



UMT data © Copyright CURE
(ASCCUE EPSRC GR/S19233/01)
University of Manchester, 2005

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G2057.020

B. Section B - TDC5 - Specific Green Infrastructure applying to all development

- B.1. The Towards a GI Framework Document in 2008 resulted in the drawing up of the GM Framework map above to show the strategic importance of the GI network across Manchester. During 2009, further evidence about biodiversity, flood risk, climate change and the economic value of green infrastructure emerged and a further report was commissioned called “Next Steps to a GI Framework in GM”. This sets out how a framework should be produced, with detailed recommendations in relation to evidence-gathering, objective-setting, governance, delivery, action-planning and advocacy. One of its outcomes was the assets and opportunities map shown above. The report is due for publication in 2011.
- B.2. Research into the benefits of Green Infrastructure are on going. However, more generally evidence exists to show trees can perform functions that improve the aesthetics and image of an area, improve permeability, filter air particulates, provide biodiversity benefits and combat the effects of wind and heat. The standard is a guide to an appropriate contribution. Work is being undertaken to take the GM work down to a Trafford level. More specific Green Infrastructure requirements in particular locations will be identified on the Trafford Green Infrastructure Plan / Trafford Forest Plan due for publication in 2011. At present the tree cover and GI assets have been mapped alongside areas which have higher temperatures and levels of pollution. This will help to identify the areas where GI is of a high importance to try and address these issues.

Trafford Forest Plan

Due for publication in 2011

C. Section C - TDC6a - Local Open Space

- C.1. The standard has been developed based on the existing amounts of local open space audited in the borough as part of the PPG 17 assessment, and Greenspace Strategy. The June 2009 Greenspace audit showed there to be an average borough wide provision of 1.35 ha per 1000 population. However this is not distributed equally across the borough, whilst quality of provision varies greatly between areas. Local deficiencies in quality are identified in the Greenspace Strategy and are informed by the Councils annual Greenspace Awards programme which involves independent assessment,, public assessment via “Greenstat” and internal inspection via parks staff. Parks are rated as bronze, silver and gold. Depending on the hierarchy status of the Park ie Local Park, Town Park Neighbourhood Park etc minimum standards of Award are set for each Park. More information for the 2010 Awards is set out in the table below:-

Open Space	Description	Quality Score	Award 2010	Standard required	Rating
Walkden Gardens	Formal Gardens	94.87	Gold	Gold	Up to Standard
Victoria Park	Town Park	88.89	Gold	Gold	Up to Standard
Denzell Gardens	Formal Gardens	86.62	Gold	Gold	Up to Standard
Stamford Park	Town Park	84.81	Gold	Gold	Up to Standard
Worthington Park	Town Park	83.87	Silver	Gold	Below Standard
Flixton Park	Formal Gardens	81.28	Silver	Gold	Below Standard
Ashton Park	Neighbourhood Park	79.49	Silver	Silver	Up to Standard
Navigation Road Recreation Ground	Neighbourhood Park	78.7	Silver	Silver	Up to Standard
Hullard Park	Neighbourhood Park	78.41	Silver	Silver	Up to Standard
John Leigh Park	Neighbourhood Park	77.88	Silver	Silver	Up to Standard
Davyhulme Park	Town Park	75.53	Silver	Gold	Below Standard
Golden Hill Park	Local Park	74.38	Bronze	Bronze	Up to Standard
Timperley Green (Aimson Rd)	Local Park	72.91	Bronze	Bronze	Up to Standard
Walton Park	Neighbourhood Park	71.6	Bronze	Silver	Below Standard
De Quincey Park	Formal Gardens	70.63	Bronze	Gold	Below Standard
Woodheys Park	Neighbourhood Park	70.01	Bronze	Silver	Below Standard
Halecroft Park	Neighbourhood Park	69.98	Bronze	Silver	Below Standard
Gorse Hill Park	Neighbourhood Park	69.56	Bronze	Silver	Below Standard
Pickering Lodge	Local Park	69.46	Bronze	Bronze	Up to Standard
Cross Lane Park	Town Park	68.21	Bronze	Gold	Below Standard
Woodsend Park	Local Park	66.85	Bronze	Bronze	Up to Standard
Lostock Park	Neighbourhood Park	66.85	Bronze	Silver	Below Standard
Longford Park	Borough Park	66.75	Bronze	Gold	Below Standard
Newton Park	Local Park	65.73	Bronze	Bronze	Up to Standard
Abbotsfield Park/Chassen Rd	Neighbourhood Park	65.47	Bronze	Silver	Below Standard
Nansen Park	Local Park	63.81	None	Bronze	Below Standard
Seymour Park	Neighbourhood Park	60.81	None	Silver	Below Standard
Moss Park	Local Park	60.09	None	Bronze	Below Standard
Moor Nook Park	Local Park	59.94	None	Bronze	Below Standard
Newcroft Road	Local Park	58.04	None	Bronze	Below Standard
Gorse Park	Local Park	55.58	None	Bronze	Below Standard
Broomwood/Mainwood R	Neighbourhood Park	55.05	None	Silver	Below Standard
Kelsall Street	Local Park	54.68	None	Bronze	Below Standard
Woodstock Park	Local Park	50.1	None	Bronze	Below Standard
Broadway/Crofts Bank	Local Park	48.44	None	Bronze	Below Standard
Kingsway Park	Local Park	42.66	None	Bronze	Below Standard
Sale West Manor	Local Park	41.8	None	Bronze	Below Standard
Oak Road	Local Park	37.77	None	Bronze	Below Standard

- C.2. Greenspace Area Plans will describe the interventions necessary in different areas of Trafford in order to bring about sustained improvements in quality, the overriding factor in greenspace provision.

D. Section D - TDC6b - Semi Natural Green Space

- D.1. On a borough wide basis, semi natural greenspace accounts for a large proportion of accessible greenspace. The actual amount equates to 2 hectares per 1000 population and is in line with the Natural England Standard. It is therefore considered appropriate to adopt it as a local standard. However the distribution of semi natural greenspace across the borough is very uneven with the very urban areas having very little access to sites near to them. Given the very urban character in the north of the borough it was considered having semi natural greenspace within 300m of resident's homes although desirable was not realistic or achievable. Semi natural greenspace also includes woodlands. The Woodland Trust has adopted a recommended standard of 2ha of woodland within 500m of residents. However, although improving, Trafford performs poorly against this standard due to its urban character. Therefore looking at a more appropriate and achievable standard an accessibility standard of 1200m is adopted.
- D.2. Quality of semi natural greenspace is evidenced by the results of the threefold inspection regime carried out for the Trafford Greenspace Awards. Only a selection of sites are audited each year so this information will be regularly updated. Further information can be obtained from the Greenspace Strategy Team

E. Section E - TDC6c - Children's Equipped Play Space

- E.1. The quantity and accessibility standard reflects national standards and is appropriate in line with local use. The Trafford Open Space Assessment of Need 2005 consultation showed that of the sites surveyed, 52% of greenspaces were considered good in terms of the quality of the access criteria. The study also highlighted a desire by residents for more provision for teenagers and this is reflected in the establishment of a separate standard for this provision. Further information can be found in the Assessment Report.
- E.2. The following table sets out the different levels of play area that should be provided for particular numbers of residents and the type of equipment appropriate to provide.

Table E1 - Summary of Children’s Play Space Categories LAP LEAP NEAP

FACILITY	TIME	WALKING DISTANCE	STRAIGHT LINE DISTANCE	MINIMUM SIZE		CHARACTER	Additional resident numbers provided for
				Activity Zone	Total Inc. Buffer Zone		
LAP - (Local Area for Play)	1 Min	100m	60m	100m ²	400m ² (0.04ha)	Informal recreation, landscaping, fencing, seating, and may include a low key games area for toddlers	50
LEAP - (Local Equipped Area for Play)	5 Min	400m	240m	400m ²	3,600m ² (0.36ha)	Informal recreation, landscaping, fencing, seating and junior play area (5 types of equipment)	450
NEAP - (Neighbourhood Equipped Area for Play)	15 Min	1,000m	600m	1,000m ²	8,500m ² (0.85ha)	Informal recreation, landscaping, fencing, seating, play areas for all age groups (8 types of equipment) , wheeled play and ball game opportunities	1062

F. Section F - TDC6d - Outdoor Sports Facilities

- F.1. The Outdoor Sports Facility Study (March 2009) concludes that the quantity of outdoor sports facilities can meet present demand and that although it is envisaged there will be an increase in sports teams there is spare capacity on school fields that have the potential to meet this demand. The audit found the present ratio of facilities to population to be 1 hectare to 1000 population therefore it is considered appropriate to adopt this as a standard.
- F.2. However the quality of several facilities is poor across the borough and of the 32 sites for football provision 5 are classed as poor and 25% have no changing facilities.
- F.3. An accessibility standard of 1800m has been adopted in line with Sport England’s recognized Sports Facilities Toolkit. Trafford’s own community consultation as part of the PPG17 Assessment of Need (2005) concluded that 85.3% of sports groups travel less than 2 miles to facilities.

G. Section G - TDC7a - Swimming Pools

- G.1. The Leisure Review has indicated a predicted over provision of swimming pools of 804 m² for Trafford using modeling based on the Sport England supply and demand methods. However much of this provision is within private members clubs and so in terms of pay to play there is a deficiency of 921.5m². In order to address this deficiency there has been a need identified for 10.2m² of new swimming pool per 1000 population. New residential development will put pressure on this deficiency and so a contribution towards providing new facilities or improving existing will help meet the needs of this new population.
- G.2. This has been calculated using methods based on the Sport England modeling toolkit. An accessibility standard of 1800m has been adopted in line with Sport England's recognized Sports Facilities Toolkit.
- G.3. In terms of quantity the majority of areas are within 1800m of a public pool. The main areas deficient are in the west and north of the borough. However, the quality of public swimming pools is an issue in Trafford with all 3 main pools at Stretford, Sale and Altrincham in need of refurbishment.

H. Section H - TDC7b - Health and Fitness

- H.1. Trafford's Leisure Review has indicated a predicted over provision of health and fitness facilities of 155 stations for Trafford using modeling based on the Sport England supply and demand methods. However much of this provision is within private members club and so in terms of pay to play there is a deficiency of 346 stations. In order to address this deficiency a need for 3.6 stations per 1000 population has been identified. This has been calculated using methods based on the Sport England modeling toolkit. An accessibility standard of 1800m has been adopted in line with Sport England's recognized Sports Facilities Toolkit.

I. Section I - Amounts to pay and examples of calculations

Specific Green Infrastructure Contribution

- I.1. Cost per tree
- Containerised tree (14cm - 16cm heavy standard) - £80
 - Stakes and weld mesh guards - £30
 - Planting costs - £75
 - Maintenance (5 years) £125
 - Total **£ 310.00**

Local Open Space contribution

- I.2. Cost of layout out 1.35 Ha (13500) of local open space, excluding play area and MUGA costs, which are dealt with separately:

Hard surfaces/pathways/drainage (1,215 sqm)	63,059
Fencing (£70/linear metre)	37,800
Access Gates (x4)	3,600
Maintenance Gates (x2)	3,200
Grassed Area (12,150 sqm)	3,324
Shrubs (135 sqm)	
Supply (200)	1,000
Planting	400
Supply and planting of bulbs	500
Supply and installation of benches (10)	7,500
Supply and installation of litter and dog bins (10)	4000
Total per 1.35 Ha	124,383
Cost per square metre	£9.21
Cost per person	£124.30

Play area/teenager provision contribution

- I.3. This has been calculated from recent schemes using 0.1Ha as teen/youth calculated from MUGA/skate park costs and 0.04 from LEAP play areas activity zones.

Cost per person is **£291.50**

Semi natural Greenspace contribution

- I.4. Costs have been worked from recent countryside improvement schemes that include woodland creation, access works and Local Nature Reserve creation.

Costs are £5.80/sqm which equates to £58,000 per hectare.

The standard is 2 hectares per 1000 population therefore the cost per person is 58,000 divided by 1000 x 2 = **£116**.

Outdoor Sports Contribution

- I.5. The outdoor sports figures have been calculated according to Sport England's toolkit using 2010 figures for grass pitches and changing facilities . Figures are based on a 2 team changing facility per pitch. A pitch is taken as 0.64Ha however a 2 team changing facility per hectare is deemed to be adequate.

The cost of a 2 team changing facility is £275,000

The cost of a pitch is £12.50/sqm which totals £80 for the pitch. Therefore this equates to £125,000 (80x0.64) per hectare.

The standard is 1 hectare per 1000 population therefore the cost per person is (275,000 divided by 1000 = 275) + (125,000 divided by 1000= 125) = **£400**

Swimming Pool Contribution

- I.6. The Sport England Facility Calculator has been used to calculate the requirements for new facilities arising from growth in population.

The calculator assesses the cost per square metre of pool at £10,007.63

Trafford has a deficiency of 10.2m per 1000 population.

Therefore the cost per 1000 population is 10,000.63 x 10.2 = £102,077.83 therefore the cost per person is therefore **£102**

Health & Fitness Facilities Contribution

- I.7. Trafford Community Leisure Trust estimate the cost of an average gym station to be £5,000.

Trafford has a deficiency of 3.6 stations per 1000 population

Therefore the cost per 1000 population is 5,000 x 3.6 = £18,000

The cost per person is therefore **£18**

J. Priority areas to spend contributions

Awaiting information

K. Detailed calculations

- K.1. The method to calculate contributions is within the main Planning Obligations SPD. This section details how the residential capacity rate for a development is calculated and then

goes through a potential development as a worked example to assess how to calculate contributions and what they will be.

Residential Capacity Rates

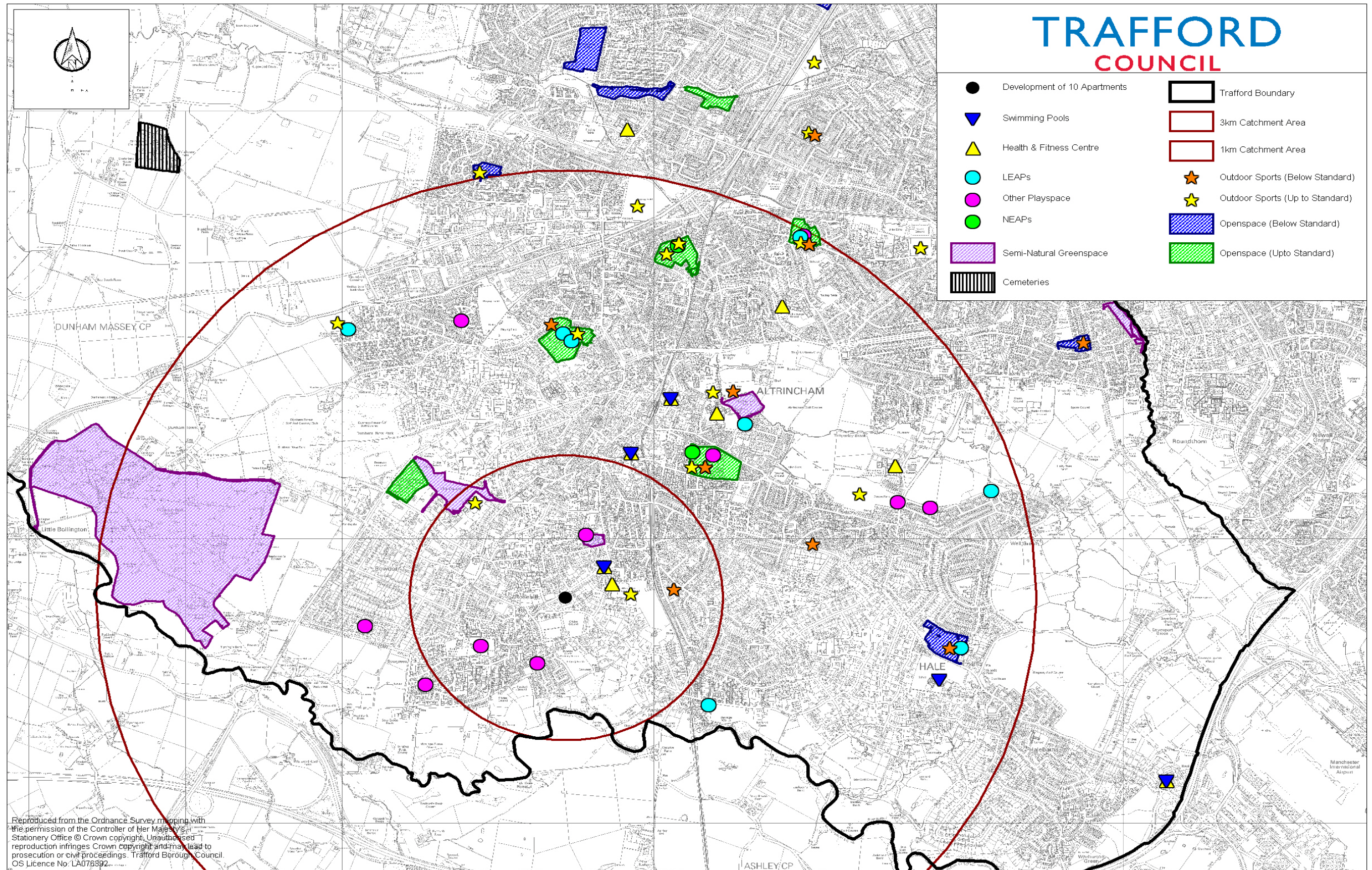
1 bedroom	1.2 persons
2 bedrooms	1.9 persons
3 bedrooms	2.7 persons
4 bedrooms or more	3.2 persons

Other types of accommodation* 1 person per bed space
Source – Census data 1991

*This takes account of open plan studio type accommodation where a mezzanine sleeping area may replace an actual bedroom.

NB If the application is for outline planning permission and the number of dwellings are not known an estimate is calculated using the formula of 30 dwellings per hectare and an average household size of 2.33. The calculated figure can be updated at reserved matters when exact numbers are known.

L. Worked example – Development of 10 apartments used for purpose of this example



- L.1. With reference to the above map the address point of the development is mapped and the existing facilities within the relevant 1km and 3km catchment zones are shown. Firstly the needs of the development are calculated by working out the residential capacity. This is then used to work out whether there are sufficient existing facilities compared to required standards to meet the development needs. Where facilities are found to be deficient in quantity or quality financial contributions have been calculated. The following sections detail each calculation and then add these up to give a total contribution required for the development.

Number of bedrooms	2 Bedroom	3 Bedroom	4 Bedroom +	Total
Apartment split	4	4	2	10
Residential capacity	7.6	10.8	6.4	24.8

Population within 1km - 9,844.25*

Population within 3km - 44,510*

*Populations calculated using Council Tax data from September 2010.

Contribution calculated using the following formula:

Residential Capacity x Standard Cost per person = contribution required.

- L.2. Green Infrastructure

Standard 1 tree per dwelling.

10 apartments = 10 trees required to be planted

If planting is not possible onsite then the contribution required = **£3,100.00**

**Quality standard not applicable

- L.3. Local Open Space (1km)

Cost per person = £124.30 (Quantity), £93.23 (Quality)

Standard 1.35ha per 1000 population.

To calculate required LOS, 1.35ha (standard) x 9.844 (population) = 13.29ha required.

Existing LOS within 1km of the development = zero, therefore an onsite quantity contribution is required.

24.8 (Residential Capacity) x £124.30 (Cost pp) = **£3,082.64**

- L.4. Outdoor Sports (3km)

Cost per person £400.00 (Quantity), £300 (Quality)

Standard 1ha per 1000 population.

To calculate required Outdoor Sports provision, 1ha (standard) x 44.51 (population) = 44.51ha required.

Existing outdoor sports within 3km of the development = 45.12ha meaning the proposed development is sufficient. However the existing provision is not up to the required quality standard therefore an onsite quality contribution is required.

24.8 (Residential Capacity) x £300.00 (Cost pp) = **£7,440.00**

L.5. Semi-natural Greenspace(SNG) (3km)

Cost per person £116.00 (Quantity), £87.00 (Quality)

Standard 2ha per 1000 population.

To calculate SNG required, 2ha (standard) x 44.51 (population) = 89.02ha required.

Existing SNG within 3km of the development = 127.96ha meaning the proposed development is sufficient. At present there is no quality information for this area therefore an onsite quality contribution is not required.

L.6. Provision for children/young people, including equipped play and teenage provision (1km)

Cost per person £291.50 (Quantity), £218.63 (Quality)

Standard 0.14ha per 1000 population.

To calculate required CYP provision 0.14ha (standard) x 9.844 (population) = 1.38ha required.

Existing provision within 1km of the development = 0.24ha meaning the proposed development is deficient in the standard 0.14ha per 1000 population required; therefore an onsite quantity contribution is required.

24.8 (Residential Capacity) x 291.50 (Cost pp) = **£7,229.20**

L.7. Swimming Pools (3km)

Cost per person = £99.57 (based on Sports England Tool Kit and a population of 212,800), £74.68 (Quality)

Standard 10.2square meters per 1000 population.

To calculate required Swimming Pool provision 10.2sqm (standard) x 44.51 (population) = 454.31sqm required.

Existing Swimming Pool provision within 3km of the development = 1,079sqm meaning the proposed development is sufficient therefore an onsite quantity contribution is not required.

contribution is not required. However the existing provision at Altrincham is not up to quality standards so a contribution to quality is required.

$$24.8 \text{ (Residential Capacity)} \times 74.68 \text{ (Cost pp)} = \underline{\underline{\text{£1,852.06}}}$$

L.8. Health and Fitness (3km)

Cost per person = £18.00 (Quantity), £13.50 (Quality)

Standard 3.6 stations per 1000 population.

To calculate required Health and Fitness provision 3.6 (standard) x 44.51 (population) = 160.24 stations required.

Existing Health and Fitness provision within 3km of the development = 202.6 stations, meaning the proposed development is sufficient; therefore an onsite quantity contribution is not required. Quality information on gym stations is not available at this time therefore a contribution to quality is not required.

L.9. Total contributions required for this example

Facility	Contribution required
Green Infrastructure	£3,100.00
Local open Space	£3,082.64
Semi-natural greenspace	N/A
Provision for children/ young people, including equipped play and teenage provision	£7,229.20
Outdoor sports	£7,440.00
Swimming pools	£1,852.06
Health and fitness	N/A
Total contribution required	£15,263.91